

BUSINESS WEEK

Atom Business

DOES IT PAY?

PAGE 108



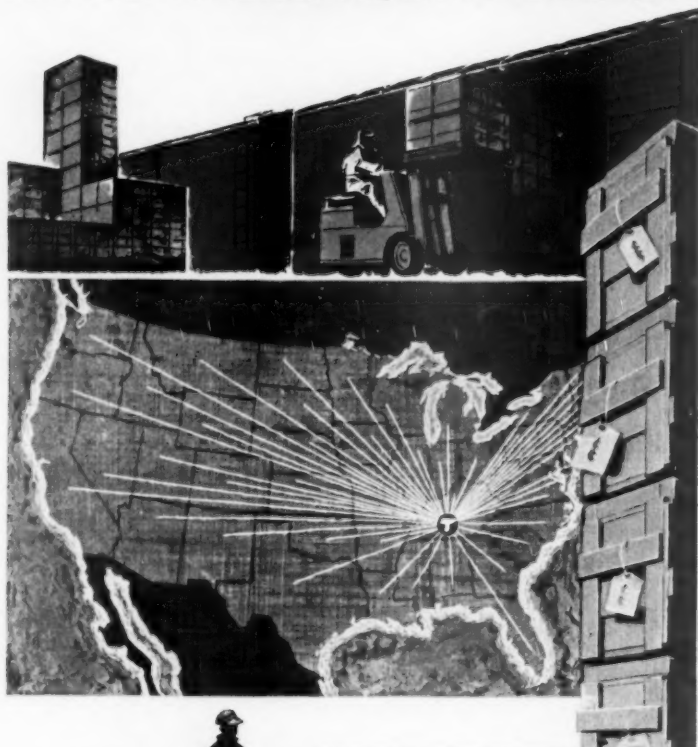
Fedway's Morris Ginsburg: A new way of retailing for a new America (page 52)

A MCGRAW-HILL PUBLICATION

OCT. 4, 1952

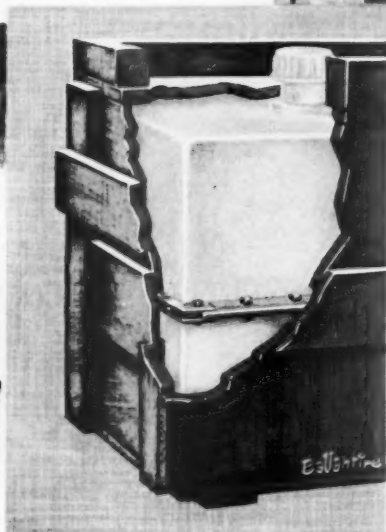
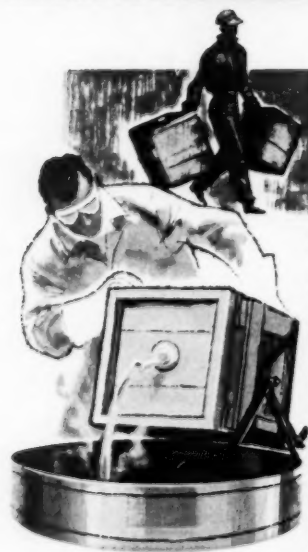
TWENTY-FIVE CENTS

THERE'S A TOUCH OF **TENNESSEE** IN **CHEMICAL CONTAINERS**



KARBOX!—the revolutionary new development in chemical shipping containers has the outstanding advantage of being not only light and nonbreakable, but also square-shaped for space saving. Karbox's polyethylene plastic liner is inert in contact with most corrosive acid solutions. This new container saves freight costs because it weighs less than half as much as conventional carboys and is square-shaped to carry more payload in less space. It is easy to handle and stacks well, nesting to lock the load.

KARBOX will do a better job of carrying many chemicals to manufacturers in all of the 48 states and in foreign lands as well. Many other products from **TENNESSEE** are also used by key industries throughout the country and abroad. That's why **TENNESSEE** is known from Coast to Coast as an industry serving all industry.



TENNESSEE
PRODUCTS & CHEMICAL

Corporation

NASHVILLE, TENNESSEE

Sales Office:

350 Fifth Avenue, New York City

Producers of: FUELS • METALLURGICAL
PRODUCTS • TENSULATE BUILDING
PRODUCTS • AROMATIC CHEMICALS
WOOD CHEMICALS • AGRICULTURAL
CHEMICALS

RESEARCH KEEPS

B.F. Goodrich

FIRST IN RUBBER



Rubber carries river that cuts through steel

A typical example of B. F. Goodrich improvement in rubber

THAT surging stream of acid water, spiked with rock and sharp slivers of coal, acts like a grindstone on the chute.

Coal has to be washed after it's mined to get rid of rocks—and what you see is waste from the coal laundry. But even when the chute was lined with steel plates, they were no match for the constant stream of rushing grit. Holes wore right through the steel in a matter of months.

When a B. F. Goodrich distributor heard that the steel plates had to be replaced two and three times a year,

he suggested lining the chute with rubber—a special rubber, so tough it is called Armorite, developed by B. F. Goodrich to stand this sort of beating.

Today the rubber lining, put on five years ago, is still taking the wearing, tearing flood, and has not been affected in any way by the steel-eating acid. Armorite has already saved the company thousands of dollars in replacement, installation and loss of production costs, and it's expected to last another five years.

This saving from longer life of rub-

ber products is a regular experience of B. F. Goodrich customers. BFG research is constantly at work on belting and hose of every type, on tank linings and every other rubber product industry uses, to make them last longer, serve better, and so reduce costs. Let your local BFG distributor show you how these improvements can save money for you. *The B. F. Goodrich Company, Industrial & General Products Division, Akron, Ohio.*

B.F. Goodrich
RUBBER FOR INDUSTRY



REPUBLIC SUPPLY COMPANY

Suppliers to the Oil and Gas Industries

GENERAL OFFICES: NATIONAL STANDARD BUILDING
HOUSTON 1, TEXAS

The International Nickel Company, Inc.
67 Wall Street
New York 5, N. Y.

Attention: Development and Research Division

Gentlemen:

Repsco shaft seals are in steady demand for use on rotating shafts that encounter severely corrosive conditions.

These seals, made of alloys containing nickel, are used to replace fragile carbon seals in hot acetic acid, or to resist attacks from hydroquinone solution subjected to intermittent doses of 6% sulphuric acid, or on pumps handling 10-15% acetic acid and butane-contaminated water, operating in temperatures that at times reach 400° F.

We frequently consult your technical field men regarding properties of engineering nickel irons and steels before fabricating components designed for applications in petroleum production and refining, and for other process industries.

Recommendations made by the INCO field staff have helped us solve some perplexing problems during the past several years, and we wish you to know that this assistance is appreciated.

Very truly yours,

REPUBLIC SUPPLY COMPANY

H. B. Catlow
Vice President

**An example
of INCO
Technical
Assistance**

At the present time, the bulk of the nickel produced is being diverted to defense. Through application to the appropriate authorities, nickel is obtainable for the production of engineering alloys for many end uses in defense and defense-supporting

industries. We shall continue to make available to industry technical data and service experience on alloys containing nickel, as dissemination of such information can help promote the intelligent utilization of critical materials.



THE INTERNATIONAL NICKEL COMPANY, INC. 67 WALL STREET
NEW YORK 5, N. Y.

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BUSINESS WEEK • Oct. 4, 1952

AIR-MAZING FACTS

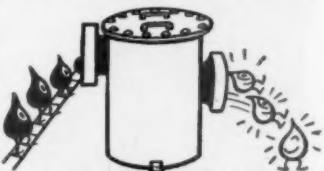
BY O. SOGLOW



WHEN THE SUN TURNED BLUE! On September 26, 1950, canny Scotsmen got a look at something uncanny. The sun had turned blue! Smoke blown across the Atlantic from forest fires in Canada was believed to have caused the phenomenon.



GAS GUARD! Piping natural gas over long distances demands dependable performance from pumping engines. Air-Maze oil-bath filters on engine air intakes remove dirt and dust from the air, guard against breakdowns, keep engines—and gas—going dependably.



LAUNDRY FOR LUBRICANTS! Air-Maze full-flow type oil filters for stationary diesel engines remove dirt and sludge from crankcase lubricating oil, greatly reducing wear and abrasion on moving parts. Filters are all-metal. Cleaning restores original characteristics.

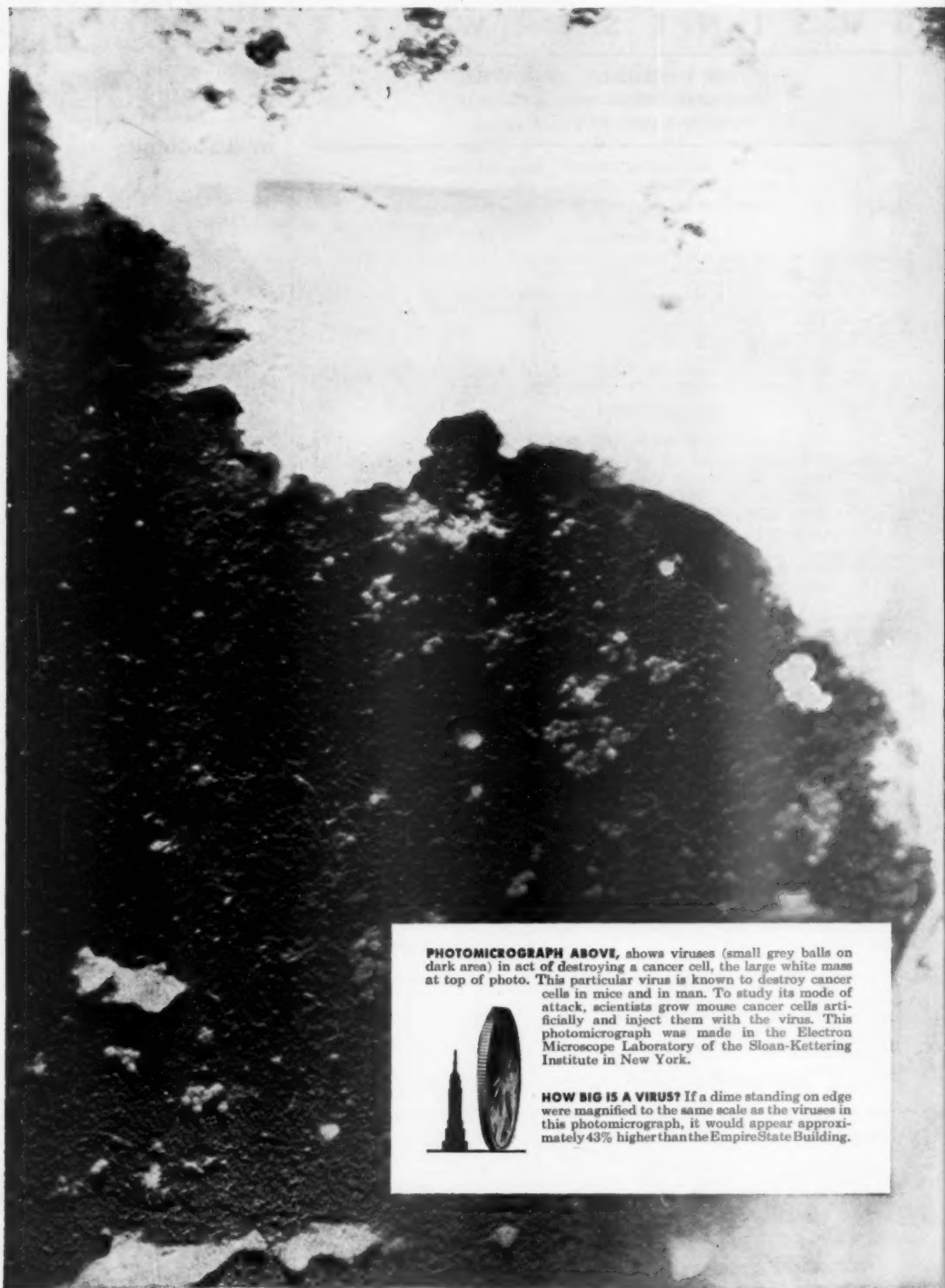
WHETHER YOU BUILD OR USE engines, compressors, air-conditioning and ventilating equipment, or any device using air or liquids—the chances are there is an Air-Maze filter engineered to serve you better. Representatives in all principal cities, or write Air-Maze Corporation, Cleveland 5, Ohio.

AIR-MAZE

The Filter Engineers

AIR FILTERS
SILENCERS
SPARK ARRESTERS

LIQUID FILTERS
OIL SEPARATORS
GREASE FILTERS



PHOTOMICROGRAPH ABOVE, shows viruses (small grey balls on dark area) in act of destroying a cancer cell, the large white mass at top of photo.

This particular virus is known to destroy cancer cells in mice and in man. To study its mode of attack, scientists grow mouse cancer cells artificially and inject them with the virus. This photomicrograph was made in the Electron Microscope Laboratory of the Sloan-Kettering Institute in New York.



HOW BIG IS A VIRUS? If a dime standing on edge were magnified to the same scale as the viruses in this photomicrograph, it would appear approximately 43% higher than the Empire State Building.

First public appearance of man's oldest enemy in action!

This is a battle picture from a once invisible front. Mark it well! For up until now, such a picture has never been shown to the public.

It is a 36,000 times enlargement of nerve-destroying viruses attacking a live cancer cell. And it was taken with an electron microscope, the most powerful magnifying instrument in the world . . . an instrument that can magnify objects up to an almost unbelievable 100,000 times.

For the first time men of science can see a virus move in for the kill. From this direct evidence they can map out strategy in the struggle against *all* viruses . . . against those that cause infantile paralysis, smallpox or the common cold.

And they are discovering how to make the virus an ally in the fight against the deadliest of all diseases—cancer.

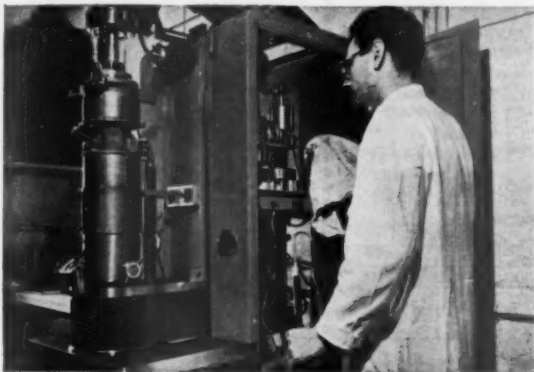
This dramatic weapon of medical science is completely dependent on metals. To build an electron microscope requires 318 pounds of copper and copper alloys, plus zinc, silver and gold.

Today these and Anaconda's other metals are being produced and fabricated in ever-increasing quantities. Not only for science and defense, but for civilian use as well. Anaconda's wire mills are supplying the electrical wire and cable to distribute more power for producing goods . . . wire that brings light to your city and home . . . that supplies the electricity to relieve us of the drudgery of countless chores and tasks. And Anaconda's brass mills are turning out the vast quantities of copper and copper alloys industry needs to manufacture finished products . . . as well as copper tubing for your new home and sheet copper for your roof flashing and gutters.

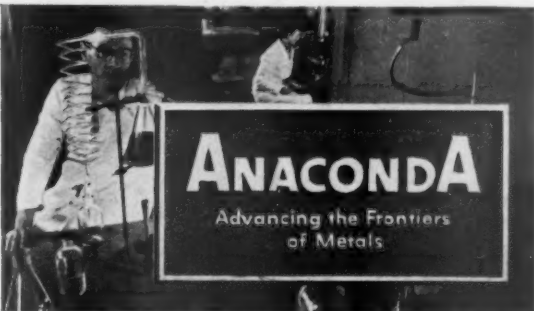
Of this you may be sure: just as medical science gives man new hope of longer life, so Anaconda will continue to help pave the way to new frontiers of usefulness for metals.



USING WAVES OF ELECTRONS, infinitesimal bits of electricity far shorter than waves of light, the electron microscope can "see" on film tiny particles which are much too small to be revealed by an optical type of microscope. This complex electrical instrument uses 88 pounds of various kinds of copper wire for its coils, magnets and connections. Wires and cables for practically every electrical purpose are made in the seven mills of Anaconda Wire & Cable Company, the foremost manufacturer of such products.



THE RCA VICTOR DIVISION of the Radio Corporation of America uses more than 230 pounds of copper and brass in manufacturing the electron microscope, much of it from mills of The American Brass Company, an Anaconda fabricating subsidiary. Only these metals can provide the unique combination of properties that many of its parts call for: easy workability to precision standards combined with strength; high resistance to corrosion; unusual ability to conduct heat and electricity.



PRODUCERS OF: Copper, zinc, lead, silver, gold, platinum, cadmium, vanadium, selenium, manganese ore, ferromanganese and superphosphate.

MANUFACTURERS OF: Electrical wires and cables, copper, brass, bronze and other copper alloys in such forms as sheet, plate, tube, pipe, rod, wire, forgings, stampings, extrusions, flexible metal hose and tubing.

If you can't do everything yourself- see if we can help

Our booklet tells more about how we can assist on DEVELOPMENT, MANUFACTURING and PACKAGING



HARTFORD-EMPIRE CO.
HARTFORD 2, CONNECTICUT

Please send literature checked below:

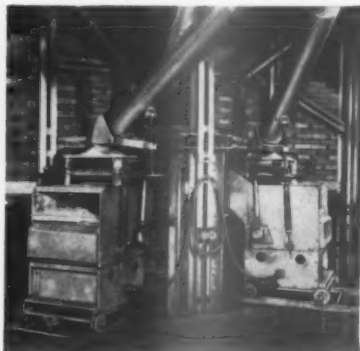
- ☐ "How Emhart Can Help"
- ☐ "Batch Charging Systems"
- ☐ "Ladle Loaders"
- ☐ "Annealing and Decorating Lathes"
- ☐ "Glass Making Equipment and Services"

NAME _____
TITLE _____
COMPANY _____
ADDRESS _____
CITY & STATE _____

CONTROLLED RAW MATERIAL FEEDING

A critical problem in many industries. Solved in the glass industry by the use of Hartford-Empire Batch Charging Systems, operating under the "supervision" of manual, semi-automatic or automatic glass furnace level measurement and control devices. This division brings to Emhart's fund of know-how long experience in designing, building and servicing complete production systems for a major industry.

HARTFORD-EMPIRE CO.
Division of Emhart Mfg. Co.
HARTFORD 2, CONNECTICUT

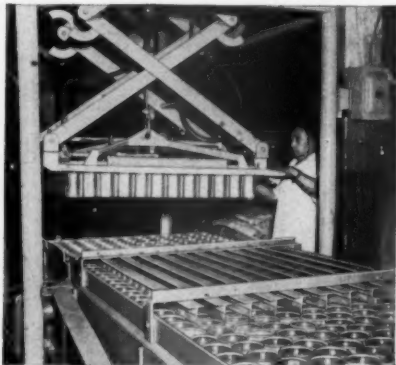


STANDARD-KNAPP
PORTLAND, CONNECTICUT

Please send literature checked below:

- ☐ "How Emhart Can Help"
- ☐ "Bottle and Can Packers"
- ☐ "Carton and Bag Packers"
- ☐ "Labelers"
- ☐ "Glues and Sealers"
- ☐ "Automatic Cartoning Units"
- ☐ "Palletizers and De-palletizers"

NAME _____
TITLE _____
COMPANY _____
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FAST, EFFORTLESS HANDLING

New machine removes cans from process lines and palletizes them mechanically at high speed. A companion unit de-palletizes cans and puts them back into production flow for labeling and/or packing into shipping cases. Standard-Knapp has a full line of automatic packaging and handling equipment for industry.

STANDARD-KNAPP
Division of Emhart Mfg. Co.
PORTLAND, CONNECTICUT

EMHART MFG. CO.

Only the best is good enough



SQUEEZE...OUT COMES "DISTILLED" WATER

A squeeze of the Plaxpak polyethylene bottle sends tap water percolating through demineralizing powder (also in Plaxpak bottle). Out comes chemically pure water in a controlled stream. Here is another example of how this unbreakable, lightweight and squeezable container is making products easier to use in the home and in industry.

PLAX CORPORATION
Subsidiary of Emhart Mfg. Co.
WEST HARTFORD, CONNECTICUT



PLAX CORPORATION
HARTFORD 1, CONNECTICUT

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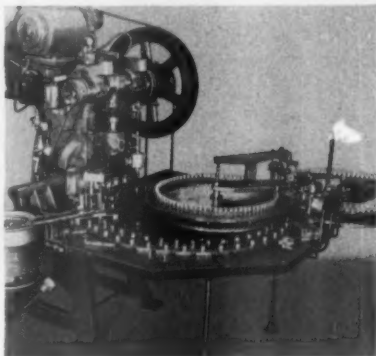
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☐ "Plaxpak Polyethylene Bottles"
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☐ "Plastics for Industrial Use"

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PARTS ASSEMBLY MECHANIZED

On this machine are performed all the operations involved in manufacturing small batteries. It consists of a V & O Power Press and a V & O Dial Feed. Dial Feeds provide a mechanical means of handling successive assembly operations automatically or semi-automatically. They are, in effect, compact assembly lines built around a power press. V & O is equipped to design and build such tools to your requirements.

THE V & O PRESS CO.
Division of Emhart Mfg. Co.
400 Union Turnpike, HUDSON, NEW YORK

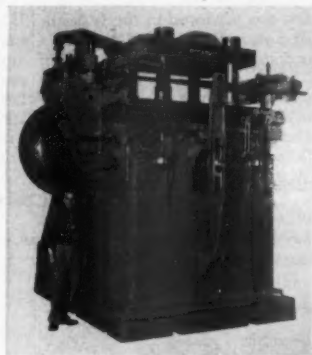


THE V & O PRESS CO.
400 Union Turnpike
HUDSON, NEW YORK

Please send literature checked below:

- ☐ "How Emhart Can Help"
☐ "Inclinable Open Back Presses"
☐ "Punch Press Feeders"
☐ "High Speed Hotters"
☐ "Homing and Wiring Presses"
☐ "Bell and Dial Feeds"

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AUTOMATION IN METAL STAMPING

Unique design of the Henry & Wright Dieing Machine has made it practical to combine tricky metal stamping operations into one progressive production sequence. Result: operations which previously had to be performed on several presses are now accomplished quickly and continuously on one Dieing Machine. Reward: time and manpower saved, tool life increased.

HENRY & WRIGHT
Division of Emhart Mfg. Co.
510 Windsor Street, HARTFORD 5, CONN.



HENRY & WRIGHT
510 Windsor Street
HARTFORD 5, CONNECTICUT

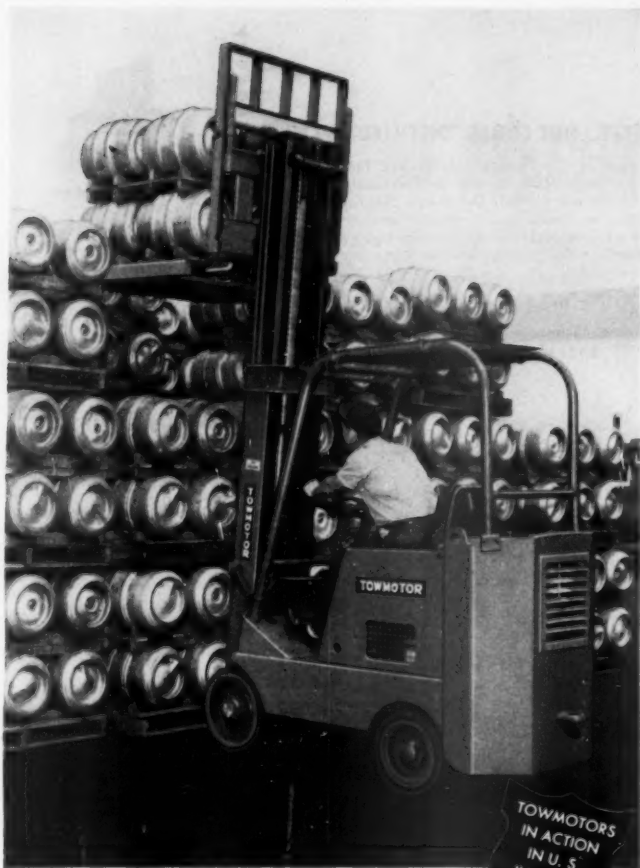
Please send literature checked below:

- ☐ "How Emhart Can Help"
☐ "Dieing Machines Catalog"
☐ "Examples of Progressive Dieing"

NAME _____
TITLE _____
COMPANY _____
ADDRESS _____
CITY & STATE _____

OUR BOOKLET, "HOW EMHART CAN HELP" is available from any of the member companies. It demonstrates the design, development, and

production skills here—clearly shows the unique combination of experience and know-how that you can put to use, no matter what you make.



Stacking double-tier pallets of keg beer at The F. & M. Schoefer Brewing Co., Brooklyn

Lay it on the line...

multi-ton, multi-tier, palletized or otherwise . . . place load after load in exact formation with untiring Towmotor fork lift trucks. Towmotor teams up with 25 specialized attachments to speed "pushbutton" handling of *all* types of material. For your copy of "Man Hour Thieves," packed with timely production tips, and name of your nearest Towmotor Representative write Towmotor Corporation, Div. 2, 1226 E. 152nd St., Cleveland 10, Ohio.



FORK LIFT TRUCKS and TRACTORS

SINCE 1919

RECEIVING • PROCESSING • STORAGE • DISTRIBUTION

READERS REPORT

A Better Index

Dear Sir:

I like your magazine and many of the articles in it, but why must you play "lose me" with your index and hide it on the 14th page of the Aug. 30th issue? . . . The index is never where one might be expected to find it. . . .

H. B. CANTOR

PRESIDENT
HOTEL GOVERNOR CLINTON
NEW YORK, N. Y.

Dear Sir:

As an editorial writer, I find your magazine invaluable, but its worth as a reference work is diminished by its impractical index. The thumbthrough technique is the only one possible, and that certainly is not efficient or enjoyable time after time.

DONALD M. MURRAY

EDITORIAL WRITER
THE BOSTON HERALD
BOSTON, MASS.

• Because of letters like these, we are this week, and every week, going to carry a complete index of major articles in the book. This week it appears on p. 24—that will be its regular position whenever possible.

U. S. Potash Production

Dear Sir:

We hate to pick a flaw in your good story on soaring fertilizer sales [BW—Sep. 13 '52, p. 54] but cannot allow to pass unchallenged the statement that potash first was produced in the U. S. in 1931. American Potash & Chemical Corp., operating plant at Trona, Calif., on Mojave Desert, has been major producer of potash for 36 years. Potash first was produced from Searles Lake Deposit at Trona in 1916 to help relieve potash shortage during World War I.

ROBERT B. COONS

VICE-PRESIDENT
AMERICAN POTASH & CHEMICAL CORP.
HOLLYWOOD, CALIF.

Author Hits Jackpot

Dear Sir:

Would you please give a friendly pat on the back to the writer of the story about Al Tananbaum, the converter with high blood pressure who experiences a crisis every minute [BW—Sep. 6 '52, p. 182].

The writing tempo and style are so attuned to the subject that I personally



ONLY ONE TOOL CAN DO THIS JOB

AN APPLICATION OF KELLER AIR TOOLS

This photograph was taken on an automobile assembly line where every operation and every motion must be kept in step. The workman is tightening the nuts which fasten the fenders and front-end assembly to the cowl.

The only access to these nuts is through hinge openings in

the doorframe. Clearances are tight, and the nuts can be reached *only* with a Keller Ratchet Wrench. No other power tool is made that can do the job. Hand wrenches require three times as long—more time than is available for making the assembly.

This is another instance that

shows how Keller Air Tools are "Engineered to Industry." It illustrates how industrial engineers dare to design with close tolerances and clearances because they know Keller will provide the tooling they need for production.

Have you a special tool-up problem? Tell Keller engineers about it... perhaps they can help you.



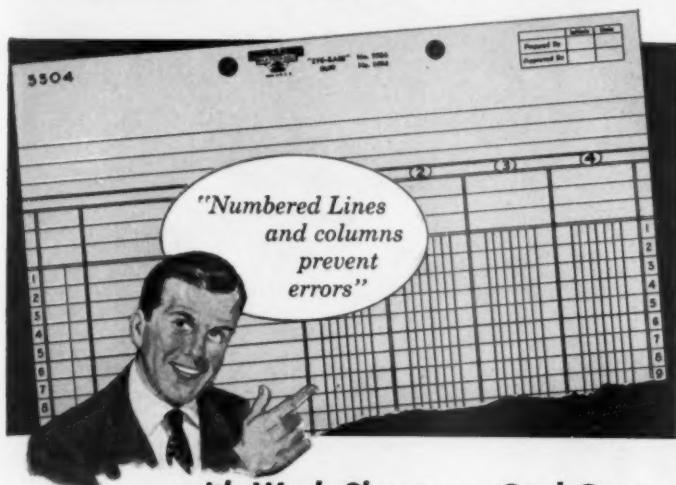
Air Tools engineered to industry

KELLER TOOL COMPANY, GRAND HAVEN, MICH.

AIR MOTORS • AIR HOISTS • AIR HAMMERS • COMPRESSION RIVETERS • GRINDERS • DRILLS • SCREW DRIVERS • NUT SETTERS



Speed Figure Work and EYEFICIENCY



... with Work-Sheets on Cool Green

EYE-EASE® PAPERS

These Accountant's Pads (National No. 5504) take the eyestrain out of paper-work. Costly errors are prevented 3 ways by (1) the restful green color of

the paper (2) numbering the lines in three places on each sheet (3) numbering the columns. Sheets are 14 x 17 — 13 columns with

Item Space. See your National Stationer for these and other National time-saving mistake-saving and money-saving forms!

Send for new 96-page Catalog showing up to 500 stock forms available at National stationers. Price \$1.00.



MAKERS OF STOCK ACCOUNTING FORMS AND EQUIPMENT — LOOSE LEAF, BOUND BOOK AND VISIBLE

experienced a rise in blood pressure as I read it.

That article should win an award as an outstanding example of excellent modern management reporting.

GEORGE H. SEFEROVICH

MANAGING EDITOR
IMPLEMENT & TRACTOR
KANSAS CITY, MO.

Dear Sir:

A gross of orchids to the author of "Tanbro's President: Every Minute a Crisis." It's tops in any league.

VIRGINIUS DABNEY

EDITOR
RICHMOND TIMES-DISPATCH
RICHMOND, VA.

Dear Sir:

This Mr. Tananbaum must really be shrewd . . . to have graduated from Fordham at the ripe old age of 18!

LUCIEN R. GREIF

THORNWOOD, N. Y.

• Mr. Tananbaum was even shrewder than that. He actually got his A.B. from Fordham at the ripe old age of 17½. He wasn't 18 until the following September.

Catnaps for Treasurers

Dear Sir:

Although the article titled, "Why Treasurers Work Nights," in the Sept. 13th issue of BUSINESS WEEK is thought provoking and most interesting, I would like to direct your attention to the lower of the two charts on page 112. If current ratios have slipped this much, treasurers would not only be working nights but also weekends. I suggest you reverse the captions on the extreme left and right-hand side of the chart.

OLIVER C. SCHOLLE

ASSISTANT SECRETARY
CORN EXCHANGE BANK TRUST CO.
NEW YORK, N. Y.

Journalistic Pride

Dear Sir:

Re the following from your Sept. 6 issue: "Rivalry Begins—It wasn't until Nov. 21, 1867, that the Deseret News began daily publication. It became the nation's first religious daily and the West's first six-day-a-week paper."

The Oregonian began publication as a six-day-a-week paper, Monday through Saturday, in 1861, six years before Salt Lake City's Deseret News.

The Weekly Oregonian, summarizing the week's news, was also published at the same time on Saturdays.

RICHARD K. MILLISON

MANAGER OF PROMOTION
THE OREGONIAN
PORTLAND, ORE.



Ever see your product as others see it?

Your package, so neat, smart and sales-appealing when it leaves the factory—what does it look like after weeks or months on a store shelf?

Is the wrap unmarred? Free of dust and soilage? Are the contents at peak freshness and quality?

If the answer is "No," it will pay you to investigate PLIOFILM—Goodyear's tough, transparent, moistureproof film.

PLIOFILM affords superb protection against practically every hazard of distribution and it preserves freshness, too. Take a look at these proved PLIOFILM advantages:

PLIOFILM is so strong, it's virtually immune to splitting or ripping—It's moistureproof,

keeps wanted moisture in, unwanted moisture out—It eliminates soilage, drastically reduces returns and rewraps—Its transparency adds lustre to any package—Its yield is greater than conventional films, making it far more economical to use.

PLIOFILM is ideal shelf-life insurance, whether you're packaging pickles or coffee—zippers or spark plugs—T-bone steaks or textiles. It prints clearly in multicolors, handles easily in packaging machines.

For the complete story on this versatile packaging film, write for the free booklet, "Plain Facts about Pliofilm." Fill out the coupon below and mail it today.

Pliofilm, a rubber hydrochloride—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

GOOD THINGS ARE BETTER IN

Pliofilm



3-way protection against
air, moisture, liquids

GOODYEAR, PLIOFILM DEPT. B-3
AKRON 16, OHIO

Please send me free copy of "Plain Facts
About Pliofilm"

Name

Company

Address

City & State

We think you'll like "THE GREATEST STORY EVER TOLD"—Every Sunday—ABC Network

WHILE WAGES GO UP, YOU STOP WASTEFUL MANUAL

Makes direct copies of
**LETTERS...REPORTS...
INVOICES...CHARTS...
DRAWINGS!**



CAN BRING COSTS DOWN! COPYING—USE OZALID!

Cut Clerical Costs! Eliminate Proofreading! End Copying Errors!



1 Any girl in your office can learn how to use the OZAMATIC machine in five minutes. Just feed in originals on ordinary translucent paper.

2 One quiet, speedy revolution does the work! No retyping, no proof-reading, no dirty hands, no time-wasting make-ready!

3 Here is your first copy in seconds—clean, dry and ready-to-use! In an hour you can have up to 1,000 letter-size copies for less than 1½¢ each!

SEE HOW OTHERS ARE SAVING WITH OZALID!

ACCOUNTING. A big department store earns additional "anticipation discounts" by using Ozalid copies to pay bills the same day merchandise is received.

INVENTORY CONTROL. An important drug chain uses Ozalid copies to keep an accurate, up-to-the-minute check on inventories!

ORDER HANDLING. A wholesale hardware firm now finds that one girl can process 1,000 orders a day—nine times as many as before Ozalid!

BILLING. A dairy found that one girl could prepare its regular customer invoices in two days. Before Ozalid it took twelve girls two days!

PURCHASING. One manufacturer saves \$8,000 a year with Ozalid in procuring materials alone!

OPERATING REPORTS. A major airline saves \$82.10 with Ozalid each time a flight report is prepared!

PRICE CONTROL. A grocery chain saves time and improves accuracy by copying weekly price lists with Ozalid!

PAYROLL COMPUTATION. One railroad saves \$30,000 yearly computing payrolls by using Ozalid copies of train dispatchers' reports to check against trainmen's time record cards!

DRAFTING. An air conditioning manufacturer reports that with the aid of Ozalid 50 draftsmen turn out as much work as 68 could normally produce.

PRODUCTION CONTROL. A large printing press manufacturer uses Ozalid to save two full weeks in processing paper work required for each production run!

The streamlined desk-top OZAMATIC makes high-quality, low-cost Ozalid copies up to 16 inches wide—any length you wish—at speeds up to 50 feet per minute. The OZAMATIC is equally efficient for making single copies, or for high speed production.

The Ozalid process gives you positive copies of anything written, drawn, typed or printed on ordinary translucent paper. Opaque materials require a simple intermediate step. Larger machines are available for wider copies and greater production capacity.

Write for full details, or call the Ozalid distributor listed in your phone book.

OZALID, Dept. A-31
General Aniline & Film Corp.
Johnson City, N. Y.

Gentlemen: Please send me complete information about your OZAMATIC machine.

Name

Company

Position

City

Cut Copying
Costs ... Use

OZALID®

Johnson City, N. Y. A Division of General Aniline & Film Corp. "From Research to Reality." Ozalid in Canada—Hughes Owens, Ltd., Montreal

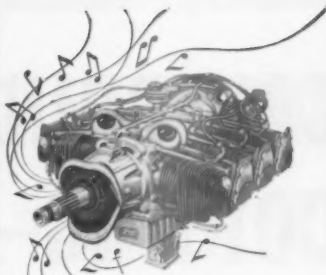
America's Leaders LOOK TO LYCOMING

Air Materiel Command
Beech Aircraft Corporation
Bell Aircraft Corporation
Bendix Aviation Corporation
Cessna Aircraft Company
Chevrolet-Aviation Engine
Division
Detroit Transmission,
Division of General Motors
Doman Helicopter Company
Ford Motor Company
General Electric Company
International Business Machines
Corporation
Navy Bureau of Aeronautics
Otis Elevator Company
Philco Corporation
Piper Aircraft Corporation
Pratt & Whitney Aircraft
Ryan Aeronautical Company
Sylvania Electric Products, Inc.
Westinghouse Electric Corporation
Wright Aeronautical Division



There's a new "beat" in this eagle's heart

Ready reserve power is an outstanding advantage of this sturdy new Lycoming aircraft engine—the only 400-horsepower air-cooled model produced today.



Its "song" fills the air

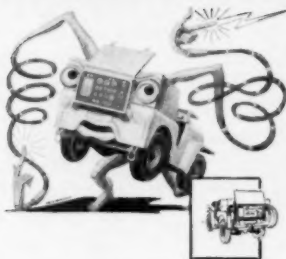
For dependable air-cooled engines in a wide horsepower range, many of the nation's leading aircraft manufacturers look to Lycoming!

ILLUSTRATIONS BY ARTZYBASHEFF



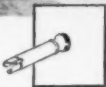
Ever see a helicopter grit its teeth?

When this helicopter's giant blade spins, tiny two-inch Lycoming gears—machined to tolerances of 1/10,000 of an inch—carry the load!



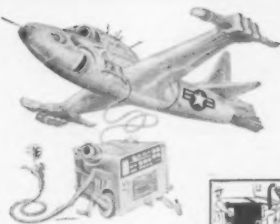
Meet a power generator with "legs"

Unique in its field, this all-weather Lycoming power package for starting planes and checking radar propels itself over the most rugged terrain.



This "sleeve" gives valves a steady hand

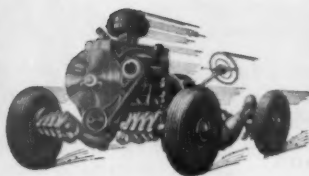
To help deliver clock-like valve operation, this Lycoming valve tappet guide provides a smooth-as-glass contact surface, machined to 5/10,000 inch.



Hot "juice" for cold jets

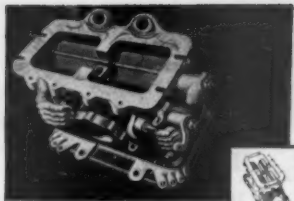
This light, compact, portable Lycoming generator provides dependable all-weather starting power for jets—from 135° F. above to 65° F. below!

LYCOMING PRESENTS



"Sinews" to give cars "go"

For any or all engine parts—pistons, transmissions, crankshafts and other essentials that can "take it"—leading auto manufacturers look to Lycoming.



Watch a plane's "lung" take a deep breath

To inhale 30,000 pounds of air an hour, an engine needs good lungs—the Lycoming fuel-injection body that never leaks or coughs at any speed or altitude.



... a representative group of
its achievements considered of
outstanding importance by America's
military and industrial leaders

Here, through the eyes of one of America's outstanding illustrators, Lycoming demonstrates how it is geared to meet the most exacting requirements of America's leading industries. From basic research to precision and volume production, Lycoming offers a versatility of skills, extensive facilities and well-rounded experience. *Whatever your problem—look to Lycoming!*



For a more complete story on Lycoming's varied abilities and facilities, write—on your company letterhead—for the interesting, illustrated booklet "Let's Look at Lycoming."

AIR-COOLED ENGINES FOR AIRCRAFT AND INDUSTRIAL USES • PRECISION-AND-VOLUME-MACHINE PARTS • GRAY-IRON CASTINGS • STEEL-PLATE FABRICATION

LOOK TO **LYCOMING** FOR RESEARCH
FOR PRECISION PRODUCTION

LYCOMING-SPENCER DIVISION
BRIDGEPORT-LYCOMING DIVISION



WILLIAMSPORT, PA.
STRATFORD, CONN.

PROBLEM: To tell if water is polluted

PROBLEM: To detect people who can't tell red from green

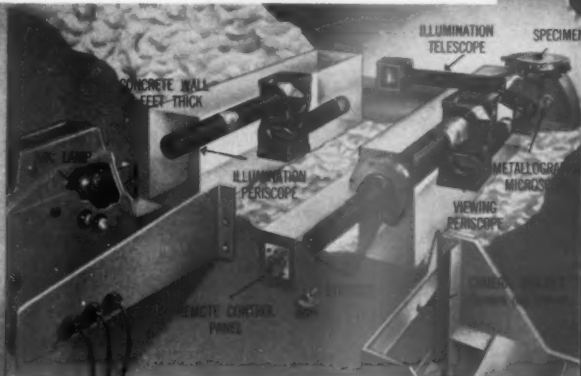


ANSWER: Red and green look alike to some people. These people can be in danger as pedestrians, drivers or in certain jobs. To screen out those who can't or won't tell their weakness, American Optical offers intricate charts of different-colored spots. Normal eyes will see a numeral among the colors; but color-deficient eyes will see either a different numeral or none at all.



ANSWER: The water your child swims in, or the food you give your family can be "safe" or "unsafe." One thing Public Health Departments *must* have to label food or water correctly is an accurate count of bacteria in the samples. American Optical has developed an improved Darkfield "Colony Counter," which makes the bacteria colonies in samples of food or water show white . . . and without glare . . . on a dark background. Bacteria counting can now be easier, more positive, and much less tiring.

PROBLEM: A remote-control microscope for atomic research



ANSWER: How can a man look at "hot" radioactive materials under a microscope when nuclear rays can kill at three feet? For General Electric, American Optical has built a photomicroscope which combines periscope, camera, and lighting. This instrument can be controlled and used through three feet of protective concrete, which completely blocks radiation. Write us about your development problems. Please address American Optical Company, 42 Vision Park, Southbridge, Massachusetts.

American Optical



BUSINESS OUTLOOK

BUSINESS WEEK

OCTOBER 4, 1952

A BUSINESS WEEK

SERVICE

Stock and commodity markets aren't putting a very high appraisal on this boom.

Average prices of common stocks are down several points from this summer's high. They aren't far from where they were a year ago. And commodities show little vigor.

You might think the boom was on its last legs rather than just ready to punch into new high ground.

Stock markets always have their excuses—or reasons—no matter how they may be acting. This recent slump is no exception.

People talk now about thin profit margins, election uncertainties, high taxes, tight money, and caution on the part of big investors.

But probably the biggest thing is this: There's been so much talk about "the day when arms spending turns down" that everyone is wary.

Don't get the idea that we're on the brink of a bust, however. Wall Street was the worst kind of a predictor in that 1946 break, you'll remember. And there's no real selling now, just lack of demand.

Stocks and commodities probably should be given a bit more time before anyone tries to read the portents, one way or the other.

Short-term trends will develop as election prospects get clearer.

After that, investors will look again at the 1953 stock market. And business is likely to take a more positive attitude on inventory.

Commodity prices have made some false starts in the last few weeks.

Perhaps they would have come closer to making good on their advance if it hadn't been for shifts in crop news; farm prices have tended downward since it became clear that the drought scare was exaggerated.

Industrial prices—costs of materials and purchased parts—didn't change enough to mention from the end of May to the end of September.

If anything, though, the curve points up. Drops in some imported products have washed out whatever strength we've seen on the home front.

But the longer the price average traces a straight line, the closer it's coming to a move. Today's odds favor a rise when that time comes.

If you are the type that bets against the majority, now would be the time to do it.

You can hardly find a forecast that will admit to any kind of a dip showing up in the next six months.

For the first time, the heady air of optimism is finally trickling into longer range forecasts.

Until lately, if you queried the professionals about what would happen after defense spending leveled off, the answers were almost universally pessimistic.

This week economic stabilizer Roger Putnam predicted good business and full employment for 18 months.

Economists of the Prudential Insurance Co. see production increasing for the next year anyway.

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK
OCTOBER 4, 1952

It's not only the forecasts that are good right now.

Industrial activity has recovered completely in the two months since the end of the steel strike (p. 28). The Federal Reserve Board estimates September production at 223 points on its index—right at the postwar top.

There's nothing in sight to keep it from going right on up.

Many steel users are beginning to yell about the inventory restrictions. The government now limits stocks to 30-days' needs; users want restoration of the 45-day stock prevailing before the strike.

Those 45-day stocks, it will be remembered, were what carried most of American industry through the 58-day steel strike and beyond.

Sometime toward the end of the first quarter of 1953, metal users will start to push for decontrol of the major metals.

There's no critical tightness in aluminum and copper even now. The only real shortage is in steel—and that is strictly temporary (p. 27).

Even so, the metal allocators now feel that it will be midyear before metals are easy enough to allow scrapping of CMP.

But the high rate at which steel is flowing may make earlier decontrol both practical and possible.

Strike-caused carry-overs of defense steel are pretty well caught up already—two months ahead of schedule.

Steel production is now roaring along at 104% of capacity. And a big chunk of new plant is going to be completed in the final quarter of 1952.

Steel capacity at the beginning of the year was 108-million tons annually. By the end of December capacity is ticketed to go to around 114-million tons.

The oil business—which feels the dislocations of the steel strike more than most—is still making good headway in its expansion goals.

The industry still expects to put in 9,000 mi. of new pipe lines this year. That's down from the 10,000 mi. talked about pre-strike. But it's still almost double the record 5,000 mi. laid in 1950.

The consumer is getting at least one break in high food costs.

The spring pig crop—which is being marketed now—was 9% smaller than the preceding years'. Ordinarily you would expect pork prices to go up.

But heavy marketings of beef have helped keep all meat prices down. Beef at wholesale is selling about 15% under year ago levels.

And the large and cheaper supply of beef has lessened the demand for pork.

Pork prices may go no higher than they were last fall.

A coming record: In the week before Christmas, output of electric power will break all records—probably reaching 8-billion kwh.

That would be almost exactly double the high-water mark for 1952.

It's nothing unusual for power output to double in any decade. But, 15 years ago, most of us thought the growth curve was flattening out.

SELECTROL required a switch with

5 OUTSTANDING FEATURES

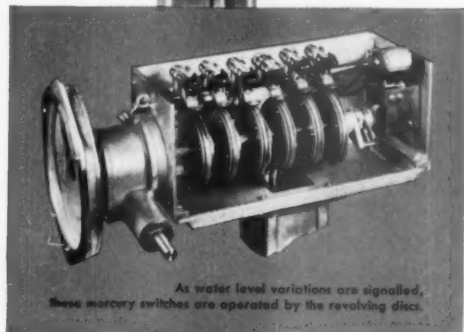
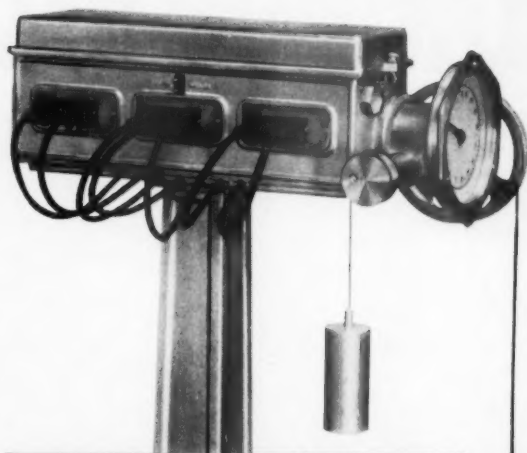
...FOUND THEM ALL IN
HONEYWELL MERCURY SWITCHES

When engineers of the Automatic Control Company, St. Paul makers of equipment for liquid level and pressure control, designed their SELECTROL automatic pump controls for sewage disposal plants and water works, they required switches with five vital characteristics. These switches must be—

- ① Highly resistant to humidity
- ② Unaffected by corrosive gases
- ③ Operated by low energy input
- ④ Capable of wide overtravel
- ⑤ Flexible in adjustment

Honeywell Mercury Switches fully met all these requirements—and were selected for this widely used system of controls. The glass enclosures provide protection from atmospheric conditions. The switch used in this application is operated on a maximum tilt of 5 degrees. Unlimited overtravel is inherent in the switch design.

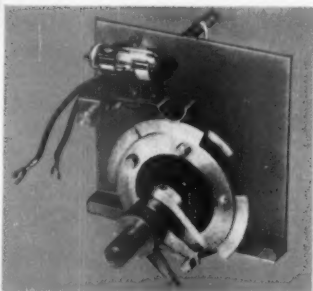
There are over 90 designs of Honeywell Mercury Switches from which to select the exact switch characteristics to meet your specific problems. MICRO field engineers are located near you to help in the selection of switch characteristics, mountings, actuating linkages, lead supports, terminal blocks, embedments and enclosures. You are invited to contact the nearest MICRO branch office for complete information.



As water level variations are signalled, these mercury switches are operated by the revolving disc.

Seven Honeywell Mercury Switches provide selective operation of this SELECTROL pump programming control. Steel tape (right) leads from tank floats to signal water level. Changes in water level cause switches to open or shut off pumps.

Segments on this disc are adjustable to permit switch to operate and start or stop pump at predetermined levels.



Let a MICRO Engineer
show you how you can
"use Honeywell Mercury Switches
as a principle of good design"

MICRO

MAKERS OF PRECISION SWITCHES

FREEPORT, ILLINOIS

A DIVISION OF
MINNEAPOLIS-HONEYWELL REGULATOR COMPANY



BUSINESS OUTLOOK (Continued)

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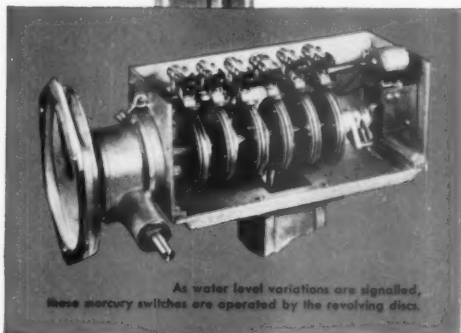
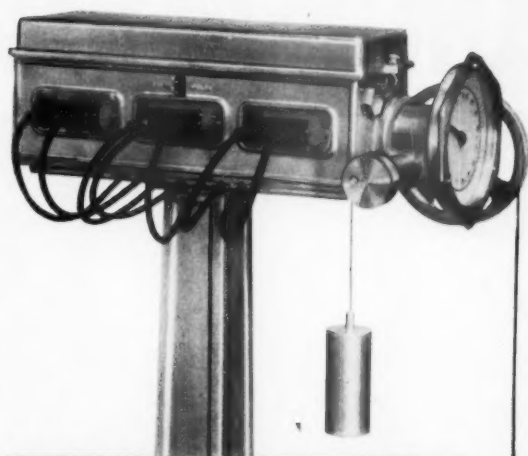
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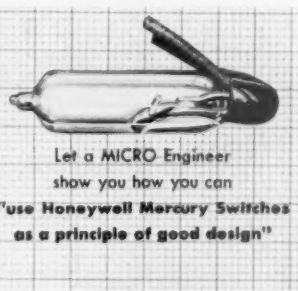
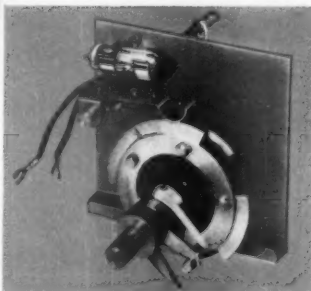
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MINNEAPOLIS-HONEYWELL REGULATOR COMPANY



ONE BILLION POUNDS



BETTER SCHOOLS BUILD A STRONGER AMERICA!

S OF ALUMINUM

coming up!

This is what Alcoa's new \$45 million aluminum smelting plant at Wenatchee, Washington, looked like just a few months back.

Today it is in production—the first aluminum was poured in July, just one year after the start of construction. This tremendous Alcoa development will provide more aluminum—170 million pounds more, annually.

Added to other new facilities completed in 1952, the Wenatchee Works means that Alcoa has increased its capacity by 240 million pounds in a single year.

It is a major part of an expansion program now under way that will raise Alcoa's total production to more than a billion pounds each year.

What does a billion pounds of aluminum mean in your life?

It means airplanes, barn roofs and power lines. Railroad cars, awnings and kitchenware. Automobiles, storm windows and irrigation pipe. *Four times as much aluminum for your needs—and your defense—as Alcoa produced in 1939.*

This quadrupling of our production is indicative of America's growing appetite for aluminum . . . and of Alcoa's determination that everyone who needs aluminum shall have it—in *plenty*.

ALUMINUM COMPANY OF AMERICA
Pittsburgh, Pennsylvania



"SEE IT NOW" with Edward Murrow CBS-TV every Sunday . . . brings the world to your armchair. Consult your newspaper for local time and channel.

The best things in aluminum come first in

ALCOA 
ALUMINUM





Grouching about your tubing performance?

LOOK INTO BUNDYWELD!



Bundyweld Tubing is double-walled from a single copper-coated steel strip. Patented beveled edges afford smoother joint, absence of bead, less chance for any leakage.

If you're grouching about tubing failures in your products, look into Bundyweld, the multiple-wall type of Bundy tubing.

Among its many outstanding properties, you'll find Bundyweld has high endurance limit, high thermal conductivity, high pressure resistance. You'll find it's leakproof, lightweight, extra-strong—yet easily, economically fabricated.

You'll see why Bundyweld's a pace setter for *dependable* function in coils for radiant heating systems; evaporators, condensers, and refrigerant lines for freezers and refrigerators; brake, fuel, and oil lines for automobiles and trucks; thousands of applications in thousands of other products.

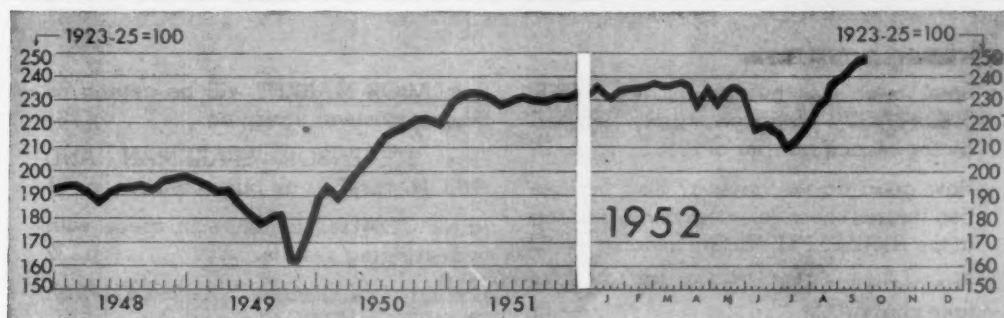
For details, write Bundy Tubing Company, headquarters for small-diameter tubing.

Bundy Tubing Company

DETROIT 14, MICHIGAN

WORLD'S LARGEST PRODUCER OF SMALL-DIAMETER TUBING • AFFILIATED PLANTS IN ENGLAND, FRANCE AND GERMANY

FIGURES OF THE WEEK



Business Week Index (above) *249.4 †248.5 241.0 231.5 173.1

PRODUCTION

	\$ Latest Week	Preceding Week	Month Ago	Year Ago	1946 Average
Steel ingot production (thousands of tons).....	2,153	†2,160	2,055	2,051	1,281
Production of automobiles and trucks.....	142,893	†147,748	122,632	113,973	62,880
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands).....	\$43,062	\$41,401	\$93,974	\$49,110	\$17,083
Electric power output (millions of kilowatt-hours).....	7,624	7,725	7,646	7,102	4,238
Crude oil and condensate production (daily av., thousands of bbls.).....	6,507	†6,518	6,284	6,304	4,751
Bituminous coal production (daily average, thousands of tons).....	1,922	†1,975	1,848	1,833	1,745

TRADE

Carloadings: manufactures, misc., and l.c.l. (daily av., thousands of cars).....	80	81	76	81	82
Carloadings: all other (daily av., thousands of cars).....	65	66	63	63	53
Department store sales (change from same week of preceding year).....	+1%	†None	+3%	None	+30%
Business failures (Dun and Bradstreet, number).....	156	145	132	154	217

PRICES

Spot commodities, daily index (Moody's Dec. 31, 1931 = 100).....	427.2	426.4	430.7	462.4	311.9
Industrial raw materials, daily index (U. S. BLS, Aug., 1939 = 100).....	269.2	270.0	268.4	313.5	198.8
Domestic farm products, daily index (U. S. BLS, Aug., 1939 = 100).....	344.7	343.9	354.1	353.2	274.7
Finished steel composite (Iron Age, lb.).....	4.376¢	4.376¢	4.376¢	4.131¢	2.686¢
Scrap steel composite (Iron Age, ton).....	\$42.00	\$42.00	\$42.00	\$43.00	\$20.27
Copper (electrolytic, Connecticut Valley: lb.).....	24.500¢	24.500¢	24.500¢	24.500¢	14.045¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.).....	\$2.42	\$2.42	\$2.34	\$2.39	\$1.97
Cotton, daily price (middling, ten designated markets, lb.).....	38.36¢	38.61¢	39.10¢	36.66¢	30.56¢
Wool tops (Boston, lb.).....	\$2.00	\$2.00	\$2.05	\$2.10	\$1.51

FINANCE

90 stocks, price index (Standard & Poor's).....	195.7	195.6	199.3	186.5	135.7
Medium grade corporate bond yield (Baa issues, Moody's).....	3.53%	3.53%	3.51%	3.46%	3.05%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate).....	2½-2¾%	2½-2¾%	2½-2¾%	2½-2¾%	3-1%

BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks.....	52,274	53,221	52,387	50,532	††45,210
Total loans and investments, reporting member banks.....	75,532	76,019	75,480	71,408	††71,147
Commercial and agricultural loans, reporting member banks.....	21,606	21,516	20,919	20,078	††19,221
U. S. gov't and guaranteed obligations held, reporting member banks.....	31,685	31,928	32,246	31,212	††49,200
Total federal reserve credit outstanding.....	24,857	25,249	24,603	24,677	23,882

MONTHLY FIGURES OF THE WEEK

	month	month	ago	average	
Private expenditures for new construction (in millions).....	September	\$2,037	\$2,040	\$1,955	\$803
Public expenditures for new construction (in millions).....	September	\$1,110	\$1,082	\$971	\$197
Consumer credit outstanding (in millions).....	August	\$21,393	\$21,220	\$19,262	\$6,802
Installment credit outstanding (in millions).....	August	\$14,907	\$14,751	\$13,045	\$3,025
Average weekly earnings in manufacturing.....	August	\$66.85	\$65.80	\$64.32	\$43.82

* Preliminary, week ended Sept. 27.

†† Estimate (BW-Jul. 12 '47, p.16).

† Revised.

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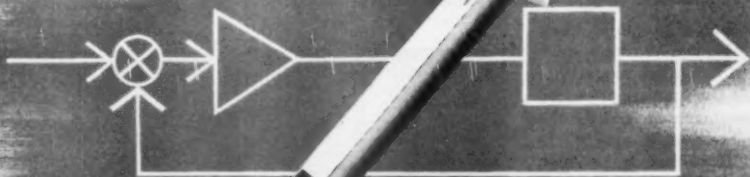
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Servos serve them All



Precision instruments and systems for the control of ships, aircraft, gunfire and missiles . . . that's Sperry's business.

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Personal Business—

This week BUSINESS WEEK inaugurates two editorial features.

The first is a completely new outlook, which will take its place alongside the regular Business Outlook, Washington Outlook, and International Outlook. You will find it on page 167, under the heading Personal Business.

Personal Business is, we believe, one of the most significant new sources of information for management men to be developed in years. It invades an area that has had scant attention, yet is certainly most important in a businessman's life. This is the management of personal affairs and finances.

Personal Business assumes that today's executive must conduct a great deal of business quite apart from his normal bread-and-butter work. He must build and manage his own estate, pay taxes, buy insurance, pay for various goods and services, entertain customers, and meet the charitable and community obligations of a good citizen. To do this properly, he needs the answers to many questions: What entertainment expenses can I

deduct from personal income taxes? Is my will really up to date? How can I help my hospitals, churches, and schools raise money? If I take Customer Jones to a show in New York, what are the hits? Is my boat properly insured? What is happening to real estate values?

Personal Business aims at answering these and other questions—by reporting the facts and trends that an executive should have at his finger-tips for private management decisions. We believe there is no comparable feature in any magazine today.

The second innovation this week, on page 24, is a new and expanded table of contents. From now on BUSINESS WEEK will list every major item, along with its page number, that appears in each issue. This is in answer to the many subscribers who have asked for such a weekly guide.

The addition of these two new features, we feel, will make BUSINESS WEEK an even more important tool for the well-informed management man of today.

Elliott V. Bell
ELLIOTT V. BELL
Editor & Publisher

Steel Shortage End Nears

- By the second quarter of next year supply and demand will about balance.
- Bars, oil country goods will stay tight longest.
- But the industry will run at capacity until July.

It would take another Korea—or something like it—to keep the steel shortage going beyond the first and second quarters of 1953. That's a widely held opinion among steel producers right now. And some important steel consumers agree with them after studying their own forward situations.

• **Signs This Week**—This is not propaganda talk or free wheeling speculation, aimed to get out from under government allocation controls, either. There are definite signs this week that the pressure is lifting. Tool steels are already reported as being in easy supply. So are some wire products—nails, for example, are not moving in great volume. There are even reports that some producers of sheet could handle business today for December delivery, if customers have CMP tickets to cover the tonnage.

"It is very clear to me," said one steel sales executive, "that by the end of the first quarter next year there is a rather reasonable assurance of a bal-

anced supply and demand for most types of steel.

"By the end of the second quarter, all products will be in balance. I would make only one exception and that is oil country goods and line pipe."

A BUSINESS WEEK check of other representative producers shows pretty solid support for this opinion.

These estimates of the end of the steel shortage are in sharp contrast with forecasts right after the steel strike this summer. Then, hardly anyone could believe that the effects of the strike would be erased until late 1953.

• **Still Tight**—Right now, just about all the steel that can be made can still be sold. Steel users are generally pushing the mills for deliveries in order to replenish inventories pulled down by the summer strike. Companies in the conversion business say they are booked pretty solid for the rest of the year.

On top of that, Washington controllers announced recently that first-quarter allocations for civilian uses will

be only 75% of this year's fourth quarter. But besides that, users will be allowed to take delivery on orders unfilled in this quarter. And steel men contend that recovery from the steel strike is ahead of Washington planning. Furthermore, industry sources doubt that there is going to be full ticket authority for the first quarter to cover all available steel.

• **By April**—If that's the case, then the way might be open for decontrol of steel by April. It could happen. Although the over-all shortage will be made up, one or two steel products may still be in short supply. They could be handled by special directives after a broad decontrol pattern is established.

• **Bars**—Military demands for shell rounds might be high enough to require continued heavy set-asides of bars of large diameter all through the first half of 1953. One important producer thinks though that the military program for bars will be well on the beam by the end of this year. Korea is limited on shell use, he points out. Bars generally are considered to be the product that will stay tightest the longest, aside from oil country goods. Warehouse demand for bars, plus the military set-asides, practically guarantees that.

• **Plates**—Here once again only military demand prolongs the shortage

now. Plates and shapes won't be tight so long as bars. One steel man explained: "Almost the whole steel industry expansion program is behind us, as far as construction is concerned. That has taken a lot of plates and shapes. Now we are getting in machinery and blowers and that sort of thing to get the new facilities ready for operation."

• **Sheets**—One big roller of sheets says it expects other companies to start scrambling for business in January. "By midyear, we will be, too." A large competitor of his believes demand for all flat rolled products will ease in the first months of 1953. "Nickel grades and stainless are the exception. They'll be tight a little longer. We are going to have to sell our products actively in the last half of the year," was the additional comment. A third producer says cold rolled sheets will definitely be easier by Jan. 1.

There are reports, too, from Detroit that automakers won't be crying too hard for steel in the first quarter next year. That doesn't mean the auto industry will not be a strong customer for steel. Rather, the Detroit companies are expecting to get their steel at mill prices after January and will be uninterested in signing any more conversion contracts.

"Most of our customers are concerned with 1952 problems, as far as steel supply is concerned. They are not so concerned about their 1953 coverage," one producer said this week.

• **High Output**—Just because the steel shortage may be due for a licking pretty soon is no reason for thinking that steel will be a drag on the market in 1953. The general business outlook is considered good enough to require a terrifically high level output of steel for a long time.

Currently, steel is being turned out at a rate of 2.1-million tons a week. That's about a 110-million-ton-a-year rate for ingots or 90-million tons of finished steel. The mills are running at better than a 100% capacity rate to crank this much out. Industry's rated capacity was 108.5-million last Jan. 1. It probably will be 6-million tons higher next January.

In the next calendar year, expansions under way now are expected to add another 6-million tons, bringing the total up to the 120-million ton level.

This steady upclimb in steel capacity, combined with the elimination of the over-all steel shortage, is likely to make it unnecessary, if not impossible, to keep operations going all through 1953 at 100% or better. The most reasonable forecast right now is that steel operations will fall below the 100% mark next June or July. How far under that miracle level it will drop no one in the steel business today cares to guess.

End of Steel Strike Brings . . .

		Wartime Peak	Year ago	Now
Business				
Week Index	(Dec. '43)	242.1	231.5	249.4
Steel	(Apr. '44)	1,791	2,051	2,153
(Thousands of tons per week)				
Autos	113,973	142,893
(Per week)				
Electric Power	(Dec. '44)	4,617	7,102	7,624
(Million of KWH per week)				
Carloadings . .	(Oct. '44)	916,485	864,310	873,559
(Per week)				
Construction .	(July '42)	1,533	2,934	3,112
(Millions of dollars per month)				

A Boom Nobody Noticed

Most businessmen this week—as every week—are thinking about the future, the months ahead or the years ahead. And most of them are doing their looking ahead with an eye peeled for signs of trouble—whether they are steel men wondering how long the market will support full-capacity operations (page 27) or machine tool builders brooding over the end of the mobilization buildup.

So it will be something of a shock even to the alert to realize that this week, only two months after a devastating steel strike, the economy as a whole is running at the highest level in its history—peacetime, wartime, anytime, bar none.

Actually, of course, the catchup from the steel strike accounts for a lot of the uprush. But beyond that, there's a clearly evident vitality throughout business that's taking the country into the fourth quarter with all the indexes slanting upward more sharply than anyone would have thought possible a few weeks ago.

• **The Figures**—Here's what's happening to some of the key indicators:

• **Steel production** hit a low point of 246,000 tons in the last week of June. But as soon as the strike ended, production rose spectacularly from 317,000 in the last week of the strike to an all-time high of 2,153,000 tons last week—just two months later. It's estimated at 2,153,000 for this week—103.7% of nominal capacity.

• **Auto production** is at its highest point since June, 1951. Output showed no strike effects through June, 1952,

then slid sharply in June to a low point of 22,148 for the week ended Aug. 2. The following week the score doubled and has been shooting almost straight up since. It's now at 143,000.

• **Carloadings** have been getting smaller and smaller for years as more and more traffic shifts to trucks. But last week, total carloadings bucked that trend and beat corresponding weeks of all years since 1948. Main reasons: loadings of iron ore and coal. The ore shipping season has only two more months to go, and ore loadings are now at an all-time high as steel mills make up for time lost through the strike in building up their stockpiles for the winter months. Coal loadings have been particularly high in recent weeks because of the threat of a coal strike. Now that the danger is over they will drop somewhat.

At the same time, the miscellaneous and L. C. L. group, which is mainly manufacturers, more than made up ground lost during the strike, and is now 9% higher than it was at pre-strike levels.

• **New records in electric power** output surprise no one: The country's use of electricity has been going straight up for decades. Last week's output comes within a hair's breadth of last December and January. And this early in the year, the greatest seasonal rise is still to come.

• **Construction** is up from last year—private by 4%, public by 10%. This trend will continue, with public construction taking a steadily increasing share of the total from here on.

Tax Cuts: The Dream and the Reality

- Plenty of Americans expect big reductions, maybe even a revision of cumbersome heaped-up codes.

- A lot of it is wishful thinking, bolstered up by a congressional committee's questionnaire.

- Actually, two things are likely: abolition or slashing of the excess profits taxes, and elimination of all or part of the 11% personal income boost put through in 1951.

A lot of Americans are looking forward to substantial relief from today's record high taxes. Politicians, in an election year, aren't casting much cold water on the idea. Indeed, activity on the part of the congressional joint committee on internal revenue is giving the impression that the entire code will be overhauled to eliminate unfairness in the myriad of levies that have accumulated over the years.

There are some good reasons for the hope, but there has been a lot of wishfulness, too.

- **Contingencies**—Some tax relief will come next year—barring war or a serious spiral of inflation.

If a business turnaround begins, the relief may be really big in order to release more money into the spending stream.

Still, today's thinking on Capitol Hill, at the Treasury and the Council of Economic Advisers is that the only tinkering with taxes in the next Congress will be:

- **Abolition or reduction of the mobilization-inspired excess profits levies.** The tax will expire automatically next June 30 unless Congress acts otherwise.

- **Wiping out or lowering the 11% increase on individuals that was voted in 1951.** This part of the income tax law will expire Dec. 31, 1953, unless extended or amended.

No revision of the general tax laws is expected.

- **Budget Balance**—It's really surprising how widespread the belief is that a tax cut is coming in the face of the campaign promises thus far of presidential candidates, Eisenhower and Stevenson. Both have offered relief only after the budget is balanced—and neither thinks that is close at hand.

At Baltimore last week, this is what the two had to say:

Eisenhower: "My sober conviction is that action along the lines I have indicated, in the absence of radical change in world conditions, will soon begin to reduce expenditures and eliminate the federal deficit. This is the first step toward tax reduction."

Stevenson: "The government has got to keep itself just as close as possible to a pay-as-you-go tax standard. I shall not favor reducing taxes until we are getting in a dollar to every dollar that we spend."

Of course, some months ago Eisenhower talked vaguely about reducing taxes. Stevenson has acknowledged that tax burdens are extremely heavy, and that people are chafing under them. But nothing in the speeches of the candidates nor even in the Chicago platforms holds any more than the hope that someday taxes can be cut.

- **Lower Echelons**—It is other politicians—particularly congressmen who must get down closer to the wants of the voter than presidential candidates—who aren't nearly so fond of the pay-as-you-go idea or fearful of inflation as the candidates seem to be.

In 1947, the Republican 80th Congress began its drive to cut taxes at a time when the administration claim and the classic economic argument was: This is the time to reduce the war-caused debt; if we can't do it in today's prosperity, when can we?

Finally, in 1948, the Republican Congress got the Knutson tax cut bill into law over Truman's veto. Perhaps you can argue from this—and apparently a lot of people do—that if the Republicans win, taxes will come down.

On the Democratic side, spokesmen such as Treasury Secretary Snyder and Democratic fund-raiser Beardsley Ruml say they don't expect the excess profits tax to be extended next summer. Political reality demands that if corporations get this break, then the individual must have his, too—the 11% voted in 1951.

- **Deficit**—Such reductions will increase the deficit, unless there is a drastic cut in expenditures in 1953 and 1954. At today's rates, the Treasury is running in the red—to the tune of around \$10-billion by next June 30. Spending will continue to rise all through 1953—which includes half of fiscal 1954. So the deficit in the next 21 months can't be expected to come down, and might even rise.

These debt figures don't seem to faze congressmen. They seem to be taking the same tack on mobilization-inspired taxes as they did last summer on mobilization-inspired price-wage controls. The 1952 defense production law is shot through with amendments softening controls.

So, why not cut taxes, if only a little bit?

Lapsing of the excess profits tax would help business by about \$3.5-billion a year. Reduction of the individual rates by 11% would give consumers between \$2-billion and \$3-billion.

This would deprive the Treasury of about \$6-billion in revenue, or about 25% of the tax bite that has been voted since Korea.

However, part of this might be made up by expansion of the economy; the Treasury usually underestimates income.

- **Recession**—In any case, don't look for any further cuts beyond the \$6-billion, unless recession fears really develop. That goes for the increased rates on corporations, and earlier increases on individuals. It goes, to, for any revisions of the tax code. When you tamper with the technical provisions—with allowances, business deductions, excises—you lose revenue for the Treasury every time.

The widespread publicity given the joint committee's questionnaire has caused some confusion on this point. The 9,000 bankers, businessmen, economists, and farm leaders who answered so far apparently think something hot is in the works.

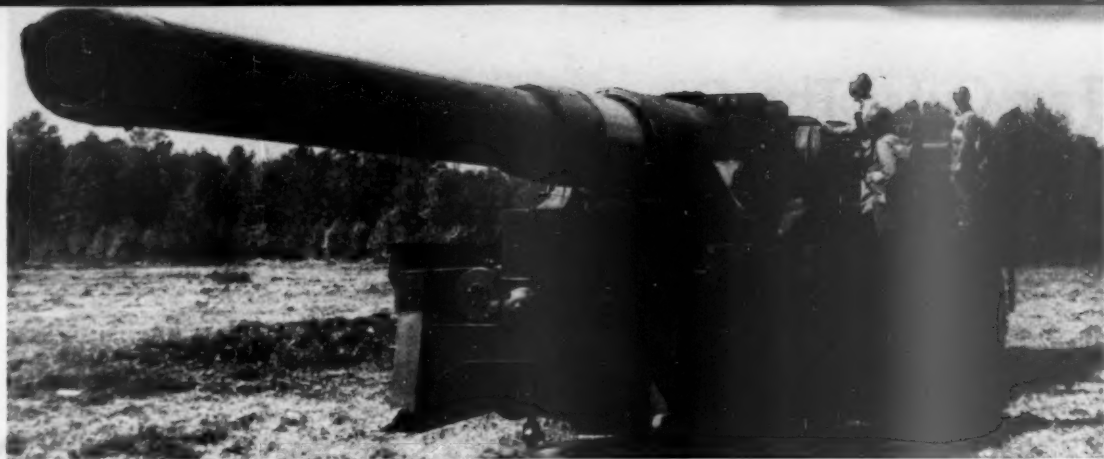
Committee director Colin Stam hasn't heard from corporations, trade associations, and labor unions yet. Stam says the project is simply an effort to find out what the experts are thinking. He says the House Ways and Means Committee has no present plans for writing a revision bill.

- **New Men**—Stam may be overlooking one thing.

The next administration will be a new one, no matter which man wins the White House. A new administration will bring in a lot of eager men with a drive to straighten out and modernize government from stem to stern. You had this even when the Republicans won control of Congress in 1946. In 1947, Roswell Magill was hired to bring in a tax revision program.

The Knutson individual tax cutting bill took precedence over Magill's program, and by the time the Republicans got around to his proposals, Truman had won in 1948 and the Democrats resumed control of Congress.

In 1953, Congress will be thinking only of individual and excess profits taxes; later it may get to tax revision.



ELEVEN-INCH cannon has a range of 20 mi., unparalleled mobility. Unveiled this week, it fires ordinary shells; it's also . . .

The Gun to Lay Down an Atom Blast



MYSTERY of the atom bomb's size is partly cleared at last. The Army figures an atomic weapon can be squeezed into an 11-in. shell the size of this one.

It took a B-29 to carry the first atom bomb. Since then, it's known that the bomb has shrunk; how much is a mystery. Some clear light hit the picture this week when the U.S. Army gave the public a peek at its new 11-in. mobile cannon.

The gun is a dual purpose job. So far it has fired only conventional shells, but the Army makes no secret of the fact that it was designed to fire atomic shells as well. That means the Army is convinced that an atomic projectile can be squeezed down to the 11-in. caliber shown at the left.

Just as a piece of ordnance, the gun is a sensational development. Design began in 1944, before the atom bomb was in business. It's the Army's largest completely mobile artillery piece; its engine cabs fore and aft can hustle its 85 tons along on highways at 35 mph.

At short ranges, the gun can rival the accuracy of other field pieces. At longer ranges—up to 20 mi.—it is said to be four times as accurate as any artillery pieces developed before World War II.



Turnover Time

Labor market faces biggest postwar churning as Defense Dept. prepares to call up reservists, guardsmen.

In the next nine months, the nation's military needs are going to cause a greater churning about in the labor force than in any similar period since World War II.

What's more, a lot of pilots and other specialists now in the reserve and figuring themselves safe from recall are going to be called up.

• **Million Men**—That's the picture that emerges from Defense Dept. estimates. The department figures that over 1-million men will have been discharged in the fiscal year ending next June—a quarter-million over the previous year. The figure will tail off to something less than a million in the following fiscal year.

For every man who leaves the service, there must be a replacement. But the in and out figures can't be made to balance nicely. That's because of the wholly unpredictable number of reinstatements, and of officers who will elect to remain on active duty.

To fill the gaps, there will be high draft calls and a stepped-up drive for enlistees for the next two years. But that won't be enough; about 100,000 reservists and national guardsmen will have to be called up. The biggest proportion of the guardsmen and reservists will already have seen service in World War II, though a few will be going on active duty for the first time since they signed up.

Originally, the Pentagon had planned to give up recalling unwilling reserve officers and specialists. Now, though, a spokesman says the services are at the revolving-door stage. A lot of unwilling reservists will have to be released in the coming months; they must be replaced somehow.

• **Specialists**—Since 1945, military units have been operating below full complement, and training programs have not yet filled the pipelines. The more specialized the job and the more training it requires, the more likely it is that a replacement will have to be fished out of the reluctant reserve pool.

Thus the Navy needs some 2,000 multi-engine pilots below the rank of lieutenant commander and with administrative experience. Probably, it will have to scratch deeply to get them. The Marine Corps has already called up virtually all its fliers, and needs experienced ground officers. The Air Force needs 4,700 reserve officers, 2,000 of them pilots. It hopes to get them via

volunteer and Reserve Officer Training Corps programs, but may have to resort to involuntary recall.

Apart from pilots, the Navy also needs experienced destroyer and mine sweeper commanding officers and executive officers below the rank of commander, in addition to seasoned department heads like navigators and communicators.

• **Calls**—The draft itself is expected to continue monthly calls for 50,000 men 26 and under until next summer. Then

the figure should drop to 40,000 a month. No inroads are expected before next spring into the college student or dependency deferred men; after that anything can happen.

As for officers, here's a recall rule of thumb: You may be called up if it took a long time to train you, if you had about three years' officer experience in your specialty, if you are below the rank of major, if you are under 38. And remember, three or more dependents don't give you an automatic exemption.

In Financial Undress...

● **Sen. Nixon emerges as the hand-to-mouth type. He's underinsured and overmortgaged.**

● **Sen. Sparkman is well-to-do, a saver who is cautious in investing his reserves.**

● **Gov. Stevenson is wealthy, willing to take a risk with his investments, but too busy to play the market.**

Two weeks ago the presidential campaign took an unprecedented turn when the news of Sen. Nixon's \$18,000 fund broke in the newspapers. Since then, three of the four major candidates have made public the details of their personal financial condition; the fourth will do so within a few days.

Quite apart from any political significance, this results in a rare and fascinating look at three significant men in financial undress.

The basic fact that emerges from even a cursory examination of the statements so far made public is that the three men are just about as different, in their financial condition and in their financial attitude, as three men can be. And it's almost certain that Gen. Eisenhower's statement will reveal still a fourth pattern.

Here's a brief look at the first three, in the order of their appearance:

• **Richard Nixon**—Sen. Nixon reveals himself as a relatively poor man, heavily in debt. If he were to die tomorrow, his wife would have little or nothing, might even find herself in the red.

Nixon's assets today include an equity of \$21,000 in his \$41,000 home in Washington, an equity of perhaps \$5,000 in his home in California (there's a mortgage of \$10,000 on it, and he says it cost him \$13,000; it's probably worth more now), a car worth perhaps \$1,000, and a cocker spaniel.

His life insurance consists of a GI policy (presumably \$10,000) and a \$4,000 commercial policy on which he has borrowed \$500, probably fairly close to its cash value.

His debts include the \$20,000 mortgage on the Washington house, the

\$10,000 mortgage on the one in California, the \$500 loan on his insurance policy, \$4,500 owed to a Washington bank, and \$3,500 owed to his parents.

Over-all, Nixon gives the picture of a man who has never had much, has never been able to save much, and has lived fairly close to his income.

• **John Sparkman**—Sen. Sparkman, Nixon's opposite number, presents an exactly opposite financial picture. He also started with nothing, but there his similarity to Nixon ends abruptly. He has "always believed in saving, even on a low income," has endeavored, ever since he first started to earn money, to set aside at least 10% of his income every year.

"Nobody," Sparkman told a reporter during the press conference, "will believe what a Scotsman I am."

He is today a fairly wealthy man, worth perhaps \$80,000 to \$90,000. (The fact that he was already earning good money in the days of low federal income taxes helped.) The assets which make up this sum include: an equity of \$25,000 in a \$35,000 home in Washington; a home in Alabama worth perhaps \$10,000 today (it cost \$4,500 to build in 1927); shares in an investment trust worth \$10,000; government savings bonds with a face value of \$20,000; a farm that cost \$3,000 and is worth perhaps \$5,000 today; about \$4,000 in cash; two cars worth perhaps, \$1,500; and the present cash value, whatever it may be, of \$50,000 in life insurance.

He also has a \$675 stock interest in a Birmingham company which has never paid any dividends. Aside from that, he says, "I have never bought a share

of stock or a bond and have never had a broker's account."

His only debt appears to be the mortgage on his Washington home—originally \$20,000, now paid off down to about \$10,000. He bought the house in 1947, when he was forced to move from a rented apartment and, he says, found it was cheaper to buy a house and meet the payments than to rent a house in Washington.

So the picture Sparkman gives is one of a frugal man and an ultraconservative investor whose entire interest is in safety of principal to the exclusion of income and possible capital gains.

• **Adlai Stevenson**—Gov. Stevenson is a wealthy man. He is a typical businessman in that he believes in making his money work for him. Unlike Sparkman, he has an eye on the income his investments yield and is willing to take a moderate risk to get it.

Stevenson made no public statement of assets and liabilities, but his income tax returns for the past 10 years show that he is close to the millionaire class. Dividend income last year came to \$46,000, which suggests a value of something like \$900,000 for his stocks alone (assuming a 5% yield). In addition, he owns a few bonds, some oil leases in Kansas, a couple of farms, and a fairly elaborate house in Libertyville, Ill. (It rents for \$7,800 a year.)

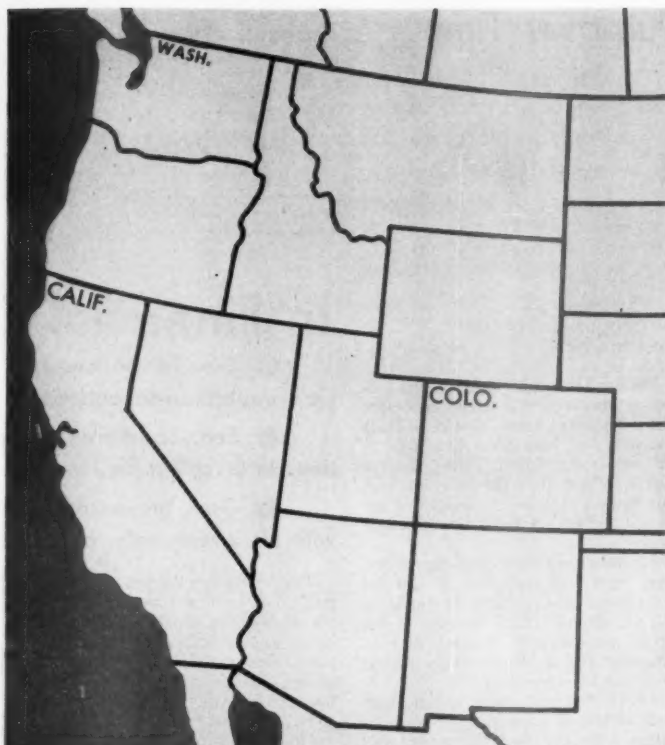
Two things are striking about Stevenson's investments:

- His holdings are concentrated in stocks. His income from interest has never been more than a few hundred dollars in the past 10 years.

- He has probably done less switching and shuffling of his holdings than most investors of equal wealth. He shows few capital gains or losses on his tax returns.

His stock holdings seem to add up to a well-diversified "businessman's portfolio." It's a little hard to tell because, although Stevenson lists the companies in which he owns stock, he has not made public the amount of his investments in each of them. The portfolio includes a life insurance company preferred; bank stocks, both common and preferred; a wide range of industrials including some blue chips, some growth stocks, some semispeculative issues; a couple of utilities; and stock in a couple of closely held corporations, such as the Bloomington (Ill.) newspaper, the Daily Pantagraph.

What emerges is the picture of a wealthy man who fundamentally assumes that the country is in the midst of a period of long-run expansion. He is playing for income and growth rather than for safety (hence the concentration on stocks to the practical exclusion of bonds). But he is too busy to do much switching or updating in his portfolio.



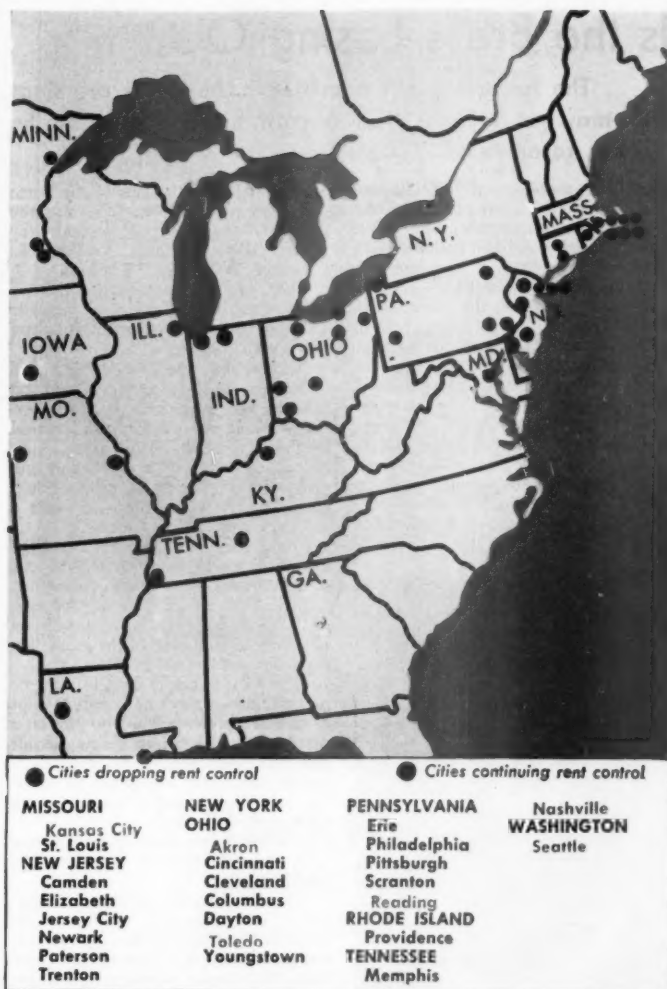
● Cities dropping rent control		● Cities continuing rent control	
CALIFORNIA San Francisco	GEORGIA Atlanta	KENTUCKY Louisville	Somerville
COLORADO Denver	ILLINOIS Chicago	LOUISIANA New Orleans	Springfield
CONNECTICUT New Haven	INDIANA Gary	Shreveport	Worcester
DELAWARE Wilmington	IOWA Des Moines	MASSACHUSETTS Boston	MARYLAND Baltimore
		Cambridge	MINNESOTA Duluth
		Fall River	Minneapolis
		New Bedford	St. Paul

Rent Control: Some Take



EMPTY

Apartments like these in San Francisco are a common sight in some cities. In general, these are the cities that have decided against controls.



ke it, Some Leave It

On Tuesday of this week, amid screams of both joy and despair, federal rent controls died in all non-critical U.S. housing areas that decided to do without them. Congress had put it up to the individual municipalities: If you aren't in a defense area where housing is classified as critical, and if the Office of Rent Stabilization doesn't hear from you to the contrary, we'll assume you want no more federal control and drop you from the list. The deadline for letting ORS know was midnight, Sept. 30.

When the dust had started to settle by midweek, ORS reported that about 30% of eligible major cities had decided to shuck controls. This leaves

price decisions on some 2-million rental units (apartments, rented houses, and the like) up to landlords and tenants.

• **Tenants' Market**—The immediate assumption might be that rents will shoot up now that the lid is off. But this isn't necessarily true. Scouring the country last week to find out just what the rent situation is in big U.S. cities, and what's likely to happen where controls have been lifted, BUSINESS WEEK reporters turned up this fact: Almost without exception, the cities that have voted to shed controls (see map) are the cities where it's pretty much a tenants' market.

Apartment in these cities are easy to get. The old World War II story of

defense workers' families camping in the parks is a thing of the past. In some cases, big new apartment houses are standing three-quarters empty (picture, p. 32). In a situation like that, rents won't go up much—if at all. Some cities, in fact, expect them to go down.

What's happening, actually, is that a wartime trend is being reversed. From about 1940 to 1945, people moved to the cities in droves. Now, they're moving back to the outlying suburbs and rural areas (BW—Dec. 22 '51, p. 73). The people who stayed in cities can take their choice of the many new apartment and rental housing developments that have been built since the war.

• **Landlords' Market**—In most of the cities that decided to stay under the federal wing, the story is altogether different. Here, apartments are at a premium—especially in the medium and lower rental brackets. Rents have squeezed up to the ORS ceilings. City officials are afraid that if the ceilings were taken away, rents would blow sky-high. (The same is true of New York State, which has its own control law and is independent of ORS.)

These areas give various reasons for the shortage of apartments. Some of them blame slum clearance projects that have torn down housing without replacing it. Others blame high construction costs, which have kept builders in these particular areas from putting up enough new housing. In other cases, there is enough defense industry around—even though the city isn't officially a "critical" area—to keep the population bigger than normal.

• **Vacancy Ratio**—In figuring out whether or not to stay under controls, one yardstick cities have used has been the so-called vacancy ratio. This is simply the number of vacant, available rental units as against the total number of units. If the ratio is low—that is, if there are few vacant apartments—it means that rental housing is in high demand. From this real estate men figure that a normal ratio is about 5%.

As you might expect, the cities that have voted to drop controls are the ones where the ratio is high. Atlanta, Ga., for instance, reports a ratio of about 5%. Chicago, on the other hand, is keeping controls: Its ratio is only .7%.

• **Decontrol Faction**—Almost all cities, whether they voted to keep controls or shed them, were alike in one respect this month: Arguments for and against controls were loud and bitter. But aside from that, each city had its own particular problems, its own reasons for voting the way it did. Here are the stories of some major cities in the decontrol group:

Seattle was a battleground; landlords and real estate men, who wanted controls dropped, lined up against labor unions, who didn't. The Seattle Apart-

ment Owners Assn. cited these figures to back up its claim that apartments are in plentiful supply: In the first half of 1950, landlords and real estate men placed 28,675 classified ads; in the first half of 1951, 39,976; in the first half of 1952, 43,050. Now that controls are off, Seattle businessmen have set up a "Fair Rent Committee" to supervise voluntary controls.

Atlanta, with a normal vacancy ratio, can also count 7,000 empty houses. These were originally built for sale, but no one is buying them. Atlanta businessmen figure they will soon be offered for rent, thus jacking up the ratio—perhaps to a point higher than normal.

Detroit businessmen figure it this way: Controls are off now, and rents should go up about 10%. When that happens, a lot of well-to-do families will move out of their apartments and buy houses. That will boost the vacancy ratio, and rents will come down again.

• **Control Faction**—Here is what happened in some big cities that decided to keep controls:

St. Louis was the scene of a near-riot. At a city hall meeting, a real estate man said that everyone who wanted to keep controls was a Communist. This aroused the ire of a labor leader, who whacked the real estate man with his briefcase. Police intervened in time to prevent a mass fist-fight. St. Louis reports very few vacancies in low and medium rent brackets.

Columbus, Ohio, was likewise the scene of some boisterous goings-on. A minister who spoke in favor of controls was heckled so unmercifully that he had to sit down. Previously, two men had committed suicide; police said it was because they couldn't find anywhere to live. Finally, Washington decided the issue: ORS told Columbus that if it didn't vote for controls, it would be declared a critical area and put under controls anyway. (Much the same thing happened to Denver; it was declared critical at the last minute.)

Cleveland reports a vacancy ratio of but 5%. In some cases, five and six-room apartments are being divided into two separate apartments.

• **Clue to the Future**—Some cities petitioned ORS for decontrol back in 1950 and 1951. In their experience since then may lie some clues for cities that decontrolled this week.

Los Angeles, for instance, went off controls in 1950. Since then, its vacancy ratio has climbed up to around 7%. Landlords have to offer all kinds of inducements to get tenants in the door. Austin, Tex., is a similar case: John E. Harrison, head of a big Austin realty firm, estimates rents have been cut 10% in the past two years. Says Harrison: "We need something to boost rent, not cut it down."

Is the Brass Losing Out?

The services aren't admitting it, but there are signs they may yet rejigger their aircraft buying plans as the civilians recommend.

Civilian mobilization officials are claiming a victory in their fight with the military brass over aircraft procurement. If they're right—and the military don't admit they are—they've accomplished something close to a miracle.

Since the days of the Continental Army, civilians in government have been demanding a voice in procurement of munitions. Their objective: to get at least a measure of efficiency and economy into what is necessarily an enormously wasteful business.

• **A Shock**—During the current mobilization no one gave the military much of an argument until recently. Early in July, Defense Production Administration's Aircraft Production Board tossed

a bombshell into the laps of Air Force and Navy plane buyers. This was the so-called Campbell report, presented by acting APB chairman, William L. Campbell (BW—Sep. 27 '52, p. 23).

The Campbell report charged the two services with wastefulness in virtually every phase of its procurement of fighter and bomber planes.

• **Nothing but the Best**—Most sensational recommendation was a demand that the two services stop ordering several different planes to perform identical missions. Instead, APB urged, they should select the best available and concentrate on producing the plane of their choice. APB followed this up with a recommended list of planes.

From the day they received the Campbell report, Navy and Air Force sources have been pooh-poohing it.

Behind the scenes, however, the services—especially the Air Force—have been quietly mending some of the most glaring holes pointed out by APB.

(1) The Campbell report blasted the unwieldiness of mock-up boards—groups of service representatives who pass on a nonflying model before a new aircraft goes into production. APB charges these groups sometimes numbered 60 members and took months trying to reach a unanimous decision.

Now Air Force mock-up boards have been streamlined to a dozen or less members.

(2) APB pointed out that manufacturers were informed of reports by inspection groups only after such reports had gone through higher military channels. That meant a manufacturer might fret for weeks.

Now the Air Force has set up a procedure for notifying the manufacturer immediately.

(3) APB urged the services to cancel orders for two jet engines—Westinghouse's J-40 and Curtiss-Wright's J-65—if bottlenecks holding up their production could not be broken quickly.

Since then, the J-40 has been tested successfully and apparently is ready for production. Top Defense Department expeditors have been helping to clear up difficulties on the J-65.

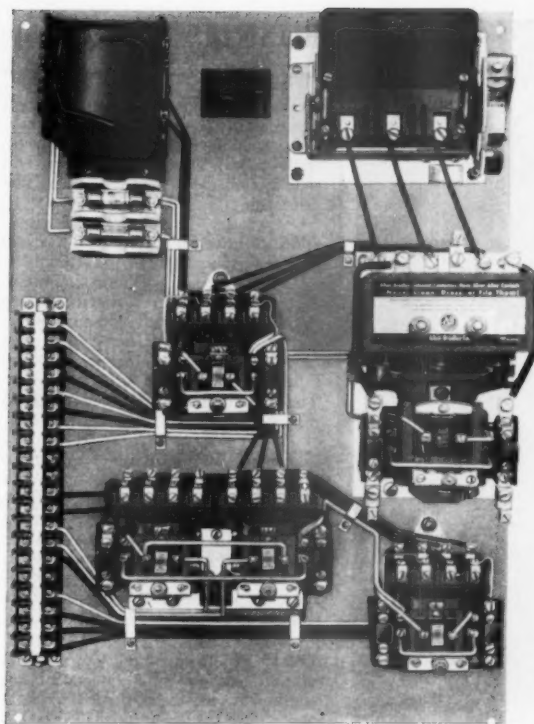
Some Air Force and Navy spokesmen still insist they are making no serious changes in orders for either aircraft or engines along the lines suggested by APB. They've scarcely had time to do so yet. But sometime next year, the civilian mobilizers predict, there will be significant changes in contracts.



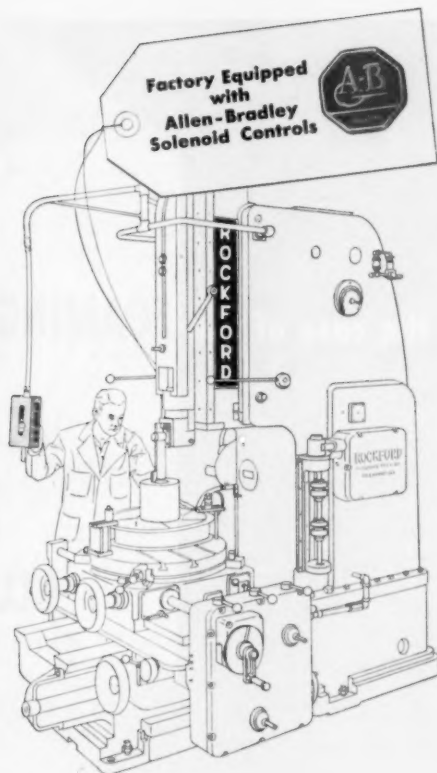
New President for Ward

The counting house took over official control at Montgomery Ward last week when Controller Edmund A. Krider (above) stepped up to be the company's fourth president in a dozen years. As Krider replaced Stuart S. Ball, his assistant, H. S. Kambestad also moved up to treasurer, with the resignation of Arthur B. Cahill.

The changes are only the latest in a long line of managerial shuffles under board chairman Sewell Avery (BW—Sep. 27 '52, p. 60); Ward alumni say the move to counting house control began in 1948, when Krider moved up to vice-president and controller.



Close-up of Allen-Bradley control panel. Note compactness of panel . . . neat wiring.



Rockford HYDRAULIC SLOTTER operated by an Allen-Bradley Control Panel

This Rockford Hydraulic Slotter is a worthy contributor to our defense production. Hydraulic drive and feeds are infinitely variable in specified ranges. Tables have rotary, transverse, and longitudinal hydraulic feed. This quality machine tool is operated by an Allen-Bradley control panel. An Allen-Bradley pendant push button station with wide arc of movement gives the operator complete machine control from any working position.

Allen-Bradley electric motor controls are reliable companions. Their simple design guarantees millions of trouble free operations. Double break, silver alloy contacts require no maintenance. These are valuable selling points in promoting your machine tools. Use the 40 years of Allen-Bradley experience to contribute to the design superiority of your motorized products.

Allen-Bradley Co., 1332 S. Second St., Milwaukee 4, Wis.



Pendant Type
Control Station



Bulletin 709
Solenoid Starter



Bulletin 800T Oiltight Push
Button and Selector Switch

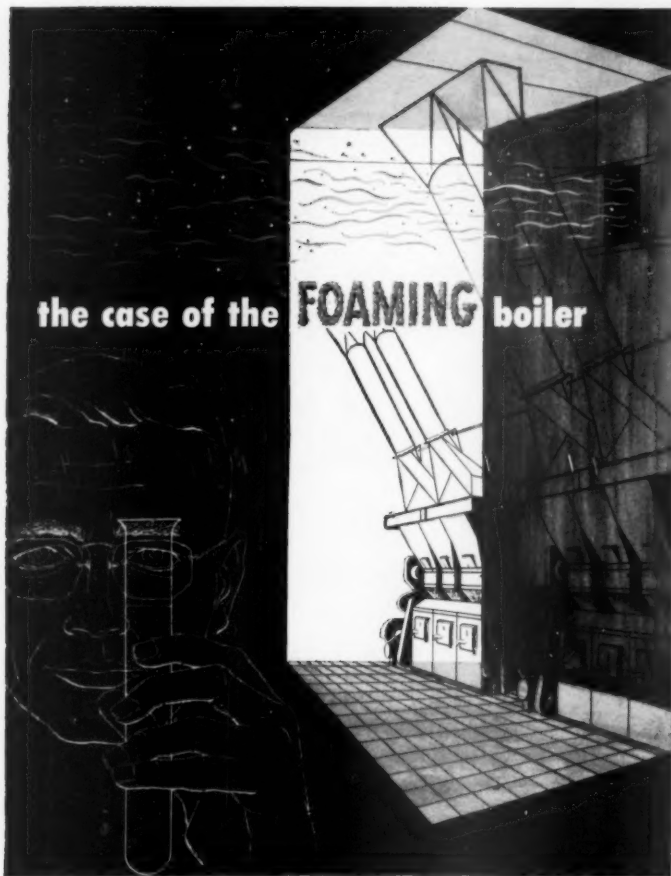


ALLEN-BRADLEY

SOLENOID MOTOR CONTROL

QUALITY

the case of the FOAMING boiler



Highly concentrated impurities in the boiler water had contaminated the steam. A frothy foam formed, carrying this contamination over into the lines, depositing it, forming scale and fouling equipment. But Dearborn laboratories had developed a patented anti-foam treatment, permitting efficient boiler operation with high solids concentration, controlling foaming and preventing contaminating carry-over into lines. Today, in thousands of boiler rooms, Dearborn Engineers have successfully demonstrated how Dearborn Polyamide Anti-Foams economically prevent this common boiler ailment.



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This is but another way that Dearborn water treatment and rust preventives can save you time and money. Whether you operate an oil well or a pipe line, an industrial or processing plant, a railroad or steamship line, your Dearborn Engineer can help you. Call on him without obligation.

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RUST PREVENTIVES**

BUSINESS BRIEFS

Kaiser-Frazer plans to enter a plastic-bodied car in the sports-card sweepstakes shaping up in the auto industry (BW—Sep. 27 '52, p. 33). Production will start around the first of next year. The price tag: About \$2,300.

Office of Price Stabilization will extend its three-city experiment in community-wide food pricing to 54 more communities. Under the new system, ceiling prices of some 300 or 400 food items will be the same for every store in a city or area, within certain classifications based on volume and type of store. The system replaces price ceilings based on specified margins over costs.

Cincinnati Enquirer employees handed a check for \$7,600,000 to Portsmouth Steel Corp. to pay a note backing employees' purchase of the paper from the estate of John R. McLean (BW—Sep. 6 '52, p. 36). The paper continues its stock-selling drive to raise \$250,000 more to pay the steel company's commission (BW—Sep. 6 '52, p. 146).

ITT's yen to buy York Corp., maker of refrigeration and air-conditioning equipment, has been denied by both companies. Latest rumor that Westinghouse is interested persists, despite efforts to squelch it.

Ultra-low-pressure tire that carries only 14-lb of air is announced by General Tire & Rubber Co. Standard low-pressure tire takes 24-lb.

Green light on mergers: Stockholders approved a proposal to sell Colonial Airlines to Eastern (BW—Aug. 2 '52, p. 34) ... Holders approved consolidation of Miles Shoes, Inc., into Melville Shoe Corp. and Mathieson Chemical Corp.'s acquisition of E. R. Squibb & Sons (BW—Jul. 19 '52, p. 136).

A \$15-million antitrust suit filed by Dean Milk Co. against seven major dairies and National Tea Co. for allegedly fixing retail milk prices in the Chicago area was quietly settled out of court for \$1,225,000.

Ad-rate boost announced by Curtis Publishing Co. hikes black-and-white page rate for the Saturday Evening Post from \$13,710 to \$14,670, or about 7%. Holiday magazine rates go up 6.5%.

Electronic-brain maker, Computer Research Corp., will sell most of its stock to National Cash Register Co., if the court approves.



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In a recent survey conducted by DESIGN NEWS Magazine, trade publication for the design-engineering field, 705 design engineers were asked to list the gear manufacturers they would consider when specifying or buying special gears. Of the several hundred gear manufacturers in the United States, The Cincinnati Gear Company was among the first five most often mentioned in all categories—and second among firms producing custom made gears exclusively. And when you realize that these "first five" firms received over 50 percent of all the mentions, the results become even more impressive. The Cincinnati Gear Company actually received many, many times the number of mentions given many other firms having considerably larger production capacities. Such popularity and industry-wide acceptance can only be the result of the constant striving for perfection that has marked The Cincinnati Gear Company's long history—a history of custom craftsmanship of quality gears since 1907. To those design engineers who named The Cincinnati Gear Company in the DESIGN NEWS survey—as well as in their orders and specifications—our thanks! And to those design engineers who are unfamiliar with our company or our product—we invite your inquiry.



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THE CINCINNATI GEAR COMPANY

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"YOU MADE IT FOR ME, DADDY?"

Yes, he made it for Jimmy without any help... though one of his arms is artificial and the other seriously crippled.

He made the toy at the Liberty Mutual Rehabilitation Center. The doctors sent him there after months in the hospital, following an accident at work that mangled both of his arms. He didn't go to the Center to learn toy making; that was just the last part of a long course of training in the use of his arms. Now he has done a lot more: he has gone back to work and is earning a regular living again... supporting Jimmy and Mom and himself like any able-bodied man.

When a badly injured worker is rehabilitated, the greatest benefit is to the man himself, who is helped to return to normal living, and to his

family, who are assured of his support. But there are other gains. His employer benefits from the services of an experienced man, and from a reduction in insurance costs when disability is reduced. And the whole nation gains when a productive worker is returned to employment.

Rehabilitation is just one phase of

Liberty Mutual's Humanics program, which also includes Industrial Engineering and Hygiene to make working conditions safer, Industrial Preventive Medicine to help men and women work more effectively, and outstanding Claims Medical Service. Humanics brings together all activities for preventing accidents, and for reducing disability and loss when accidents occur.

Would you like to know how Humanics has helped other employers reduce the cost of Workmen's Compensation Insurance and increase production? Write for the booklet, "Humanics." Just look in your Telephone Directory for the nearest Liberty Mutual Office, or write to 175 Berkeley St., Boston 17, Mass.



★ Better Compensation Insurance Protection at Lower Cost through HUMANICS ★



WASHINGTON OUTLOOK

WASHINGTON
BUREAU
OCT. 4, 1952

A BUSINESS WEEK

SERVICE

The Democrats are worried. One month ago, they figured Stevenson had it in the bag. Many Republicans agreed. Truman's "help" was scorned. He was counted a liability, because of Korea, corruption and communism. Now it's different. You have the spectacle of a party 20 years in power out fighting for its life. No holds are barred.

Polls now put Eisenhower ahead. His margin is short, inconclusive. But it's a gain, over the convention season, when Stevenson was tops.

Nixon is turning out O.K. His fund at first appeared a calamity. But the VP nominee has capitalized on this affair—so far.

And Ike is pulling the crowds, not only in the Republican strongholds, but also in citadels of the solid South.

Stevenson's camp shows discouragement. There's no mood of surrender; far from it. But the early post-convention cockiness is gone.

Truman's current whistle-stopping is welcomed. As recently as Labor Day, it was felt help from the chief executive might backfire. Now, the hope is that Truman will build up down-the-line support which hasn't been rallied by the well-turned Stevenson phrases.

Money for Stevenson is short. His big foreign policy pronouncement at Louisville, Ky., was only broadcast locally. He didn't have the cash for a national hook-up. (His press experts slipped up on this one, too. They released his financial statement at the same time and it blanketed his toughest attack against Eisenhower on foreign policy matters.)

The Republican record in Congress will be the target from here on. Truman capitalized on it in 1948. He's playing it hard in current talks. And Stevenson is taking it up, too. Note Stevenson's Ft. Dodge address: Most Republicans opposed continuing the high level farm price supports, 90% of parity, while Eisenhower now promises even higher future supports. Truman, meantime, endeavors to show Eisenhower up as a stooge—a good general but ignorant of the issues of the day and a captive of special interests, which, he says, run the Republican party.

Stevenson will be pushed more left as the campaign goes on. He's out to win and (aides tell us this) is studying how Truman did it in 1948.

He's trimming on earlier stands on issues. Take the Taft-Hartley act. Before his nomination, Stevenson saw little wrong with the labor law. Now, he wants it repealed. The CIO and AFL supported him for this. Another example is FEPC. To Stevenson, it's no longer a local government problem. He's leaning to national legislation as the answer to discrimination.

The South is a brake on how far left he goes as a campaigner. Stevenson needs the southern vote. He feels sure he will get the South, with the possible exception of Florida and Texas. But he has to watch his non-South promises. Men who think like S. C.'s Byrnes have influence.

It's a close race, with many votes undecided. The polls agree on this point. So do the latest checks made by the two political parties. Ike's lead is insecure. A slip could wash it out. The Democrats know it. That makes the maneuverings in the next four weeks all-important.

Korea is a key issue. Voters ask, "Why don't we get it over with?"

WASHINGTON OUTLOOK (Continued)

WASHINGTON
BUREAU
OCT. 4, 1952

The war is into its third year. Casualties now exceed the 100,000 mark. A new, dramatic move may be needed to meet political criticism.

So is communism in government. And Truman is finding it difficult to play down Red infiltration of key agencies when a top notch official such as Gen. Bedell Smith says commies should be looked for in his own agency—the ultra-secret Central Intelligence Agency.

Next comes corruption. Political writers find it high on the list of complaints voters have against the Administration. Many voters who were with Truman in 1948 now are switching to Ike, because of the scandals.

•
Can Ike hold his edge and win? There's no certainty on this question. Truman is waging a campaign on fear, patterned after his 1948 coup. He's telling the farmer that only the Democrats will hold his prices up. And he's telling housewives that only the Democrats will stabilize living costs. Good jobs at big wages, big production and good profits depend on the Democrats, he claims. A switch, he warns, might mean depression.

•
Tax cuts are ahead, no matter who wins in November (page 29) and you can be almost certain just where they will come.

Odds favor an end to the excess profits tax next summer. This was a temporary levy when it was enacted after Korea—and the law will expire June 30. Barring a bigger war on new war scares, Congress probably will let this tax go off the books on schedule.

Individual income tax cuts are probable, too. The last post-Korea hike also expires next year—Dec. 31. Again, this means that Congress must act to keep them up. Otherwise, every taxpayer gets an 11% cut.

•
Proposals for tax revisions are pouring in. Thus far, they have come to the Joint Committee on Taxation, most of them from individuals and small businessmen seeking relief.

But revision is a year or more away. Congressional experts feel that no matter who wins in November, a general rewriting of the tax laws will have to wait until revenue needs decline.

•
Whether there's a coal strike is up to Washington. John L. Lewis this week got acceptance from the Southern soft coal producers of the \$1.90 per day pay raise earlier agreed to by Northern operators. The settlement now must be passed on by the Wage Stabilization Board.

Oct. 15 is the deadline. That's when the raise, which punches a new hole in the wage ceiling, is supposed to start. Unless the wage board has O.K.'d it by then, Lewis threatens to pull a walkout. There's little doubt that the board will approve the raise. The Administration doesn't want an election-season coal strike.

•
A business slide, a readjustment, is taken for granted, once defense has ceased to be a production stimulant. Most thinking among government and private economic forecasters is that it will show up sometime in 1953, probably in the spring or summer. But the consensus is that it will not be severe, compared with past depressions. The feeling is that no matter which political party is in power, Washington will prime the pump to stop any severe let-down in business.

Can you top this?



Here's a manufacturing story that's really a "topper"! It's the story of Vibrin plastic and what it did for this jaunty Jaguar convertible.

Vibrin polyesters, combined with glass fibers, made possible a custom-built, detachable hard top* with new strength, new lightness, and new durability. And at relatively *low cost!*

So light (only 21 lbs.) it's no job at all to put it on or take it off — in just three minutes!

So strong you just can't dent it! This Vibrin laminate springs right back into shape after a blow that would ruin any ordinary top.

So tough it lasts the life of the car! Just refuses to rust or rot, or be bothered by weather in any way.

And soundproof, too! This Vibrin top deadens road and engine noises to

give a ride that's quiet as a whisper.

Good news for Jaguar owners? You bet! And even better news for *manufacturers*. Because this unusual new reinforced plastic has a way of making all sorts of products better than they ever were. Needn't tell you it will pay you to see how Naugatuck's Vibrin can help *your* product. Why not send us the coupon below, today?

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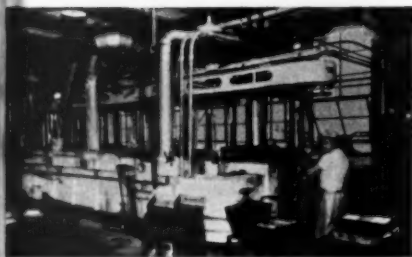
Naugatuck Chemical Plastics Division, 510 Elm Street
Naugatuck, Connecticut

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PICTURE COURTESY OF MACK MOTOR TRUCK CORPORATION



Udylite Full Automatic Plating Machine is used at Ross Gear and Tool Company plant, Lafayette, Indiana.

UDYLITE EQUIPMENT ELECTROPLATES "REINS" FOR MODERN "MULES"

ROSS GEAR AND TOOL COMPANY USES UDYLITE EQUIPMENT TO PLATE STEERING GEAR PARTS FOR MACK TRUCKS

The old work mule has been put out to pasture, his place taken by powerful, rugged motor trucks which can go anyplace the mule could—and faster. Endurance is a premium with these huge vehicles—breakdowns cost money and precious time.

Moving parts in these modern "mules" must be protected against wear and tear with a surface as tough as the jobs these trucks must do. So Ross Gear and Tool Company, suppliers of steering gears for Mack Motor Truck Cor-

poration, plates cams and bearing races with Udylite methods and machines. This assures a uniform finish at minimum cost in materials and manpower . . . and prevents surface scoring of these vital parts.

Ask your Udylite Technical Man about other examples where Udylite is helping build better, longer-lasting products. Or write direct to *The Udylite Corporation, Detroit 11, Michigan*, for complete details on how Udylite can help your firm in metal finishing operations.

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TESTED SOLUTIONS • TAILORED EQUIPMENT
AUTOMATIC CONTROL IN METAL FINISHING

THE
Udylite
CORPORATION

MARKETING

TV Sales Tune In on a Brighter Future

● After a months-long slump, the television business is starting to perk up. People are buying again.

● The upswing is due partly to the fact that it's fall—traditionally the best TV season. But there are longer-range, more permanent causes behind it.

● To a lot of people this looks like the beginning of a three- or four-year boom. By 1956, perhaps 40-million sets will have been sold.

Television manufacturers and distributors are pinching themselves this week, business is so good. For months, they have been moaning that the bottom of the market had dropped out. Now, they think, the bottom is going up like an express elevator.

Best evidence of the upswing in television sales is at the manufacturing level, but many retailers are wearing broad smiles, too. The talk in the business is of possible shortages, rather than surpluses, with inventories at rock-bottom levels. Even Wall Street is feeling the enthusiasm; there's a flurry of activity, and prices on TV stocks are climbing.

• **Rosy Picture**—To find out just how good TV business is, BUSINESS WEEK reporters talked this week with manufacturers, distributors, and dealers throughout the country. The rosiest picture was painted by producers.

DuMont reports production up sharply; its New Jersey plant, it says, is operating on a six-day week. Philco is adding night shifts. The radio-TV division of Westinghouse says its Pennsylvania plant is working on an overtime basis with record employment and production up 35% over a comparable period in 1951. General Electric says it's producing to capacity. Crosley says recent deliveries have been up 82% over a similar period in 1951. Its dealers have been on allocations for months.

On the retail level, the picture is spotty but—in general—still good. More important, sets are selling not only in such virgin markets as Denver and Portland (page 170) where new stations are going into operation, but in "saturated" areas as well. Such old TV cities as Boston, Cincinnati, Syracuse, Los Angeles, and San Francisco report that business is healthy. "A year ago we were in trouble and making deals to clear out our inventory," says one Cincinnati dealer. "Now it's just

the opposite." From all indications, the pickup started in August.

An even more accurate tipoff on how nationwide retail, television sales are doing comes from a large chain store outfit. It says its national TV sales are up 40% to 50% over last year.

• **Background Note**—Some retailers temper their enthusiasm with caution. They've been burnt before and don't want to repeat. Many of them are keeping inventories down to rock bottom, working on hand-to-mouth or "comfortable" levels. A few are plainly skeptical of all the hoopla stirred up by the big makers. "After all, when business is twice as good as nothing, that isn't much of a change," a Chicago dealer points out.

• **Trend**—The TV sales pattern, except for boom cities like Denver and Portland follows a definite trend. Everybody—appliance store, department store, and furniture store—is getting a hunk of the business. Demand for line leaders (the lowest-priced models) is heavy, but buying is across the board, right through to the swanky \$500-and-over sets.

• **Causes**—Why the boom? Manufacturers and retailers can think of so many reasons that they run out of fingers counting them up. As they see it, the most important ones are:

• **New markets**. Now that the Federal Communications Commission's freeze is off, two new stations have already gone into operations, and others will soon follow suit. This will open up fast new markets for TV sales. Many distributors and dealers are getting in stock now in anticipation of sales in these new areas.

• **Spreading-out of existing markets**. With better quality sets on the market and some old TV stations hiking their transmitter power, consumers living in television fringe areas can now get good reception. This group,

too, is now coming in the market.

• **More trade-ins**. In the past, the replacement market has been dead. Now dealers report that customers are coming in to get new, larger-screen models. Ranged along with this is an increase in two-set families. Some families now keep one set in the living room, another in a bedroom or den.

• **The time of year**. Fall is normally the big season for TV sales anyway. Add to this the fact a World Series and football season are coming up, along with a hot election campaign, and you have something few potential buyers can resist. Heavy TV advertising is giving many buyers the final push.

• **Prices**. Some buyers are coming in the market because they feel that prices are now "right." To help give the buyer this feeling, some TV manufacturers who had stayed out of the lower-priced market are now moving in. DuMont is one example; it now has a table model priced under \$200. Another factor is that many buyers think prices have just about hit the bottom. If they don't buy soon, they figure, they'll be up against higher price tags later on. Admiral has already announced a price hike. This may be the tipoff to other manufacturers—and to consumers.

• **Shortages**—Although business prospects look rosy, manufacturers have plenty of headaches. Many think there will be shortages by Christmas. Some of the shortages, they say, will be due to the fact that production can't keep up with demand. Other shortages will crop up because most parts suppliers have lagged behind the big assembler-manufacturers in expanding production. Some parts are already getting scarce: kinescope tubes, tuners, and certain types of cabinet. Especially scarce are ultra high frequency tuners.

But the problem of parts shortages and lagging suppliers should be at most a temporary headache. The long-term outlook is glowing. TV production this year is expected to top 5-million sets. And with about 740 applications for TV stations now pending before FCC, and dozens of new stations planning to go into operation in 1953, the sky is the limit to many TV businessmen. By the end of this year there will be an estimated 20-million TV sets in the U.S. Dr. Allen B. DuMont, president and director of DuMont Laboratories, Inc., estimates that 40-million sets will have been sold by 1956.



*Why did you hire a
receptionist with a friendly smile?*

Undoubtedly because you knew her friendly smile would be an asset to your business, serving as a company welcome to all who call.

Just as her smile creates an atmosphere of friendliness for your company, so can the Christmas cards you send. And this year with the new Hallmark Christmas Cards designed especially for men and business firms, you'll find it takes but little time.

Simply visit the store that features Hallmark Cards. Ask to see the Hallmark Album for Men containing Christmas cards for men and business firms. In a matter of minutes you can select the card you want imprinted with your name. Select from a wide variety of Christmas cards designed with dignity and good taste—confident in the knowledge that to everyone, everywhere, the Hallmark on the back of a card means, "You cared enough to send the very best!"



"When you care enough to send the very best"

MARKETING BRIEFS

A FAMOUS SYMBOL ...BACK ON WORTH STREET



"SELL AND REPENT"

Worth is a name of confidence, a name of history and a name of the world. It has been the only name in the history of the world to be used by a man who has sold and repented. It has been the only name in the history of the world to be used by a man who has sold and repented. It has been the only name in the history of the world to be used by a man who has sold and repented.

Iscelin-Jefferson Company, Inc. 1000 N. 10th St., New York 17, N.Y.

A venerable trade mark has a new owner. Iscelin-Jefferson Co., Inc., New York textile merchants, bought from William Pinell the "Sell and Repent" slogan that Fred Butterfield & Co. brought from England in 1838. Old John Preston, whose picture accompanies the slogan, was an 18th century textile man who believed that a fast turnover was better than a high price.

Home freezer sales are racing. Appliance producers report that freezer dollar volume is now better than one-third of refrigerator volume. For the first eight months, sales came to 521,000 units, with a big spurt in the May-through-August period.

Atlantic Monthly Book Club distributes its first selection this month. The new club's judges are Atlantic editors Edward Weeks, Charles W. Morton, and Charles Rollo.

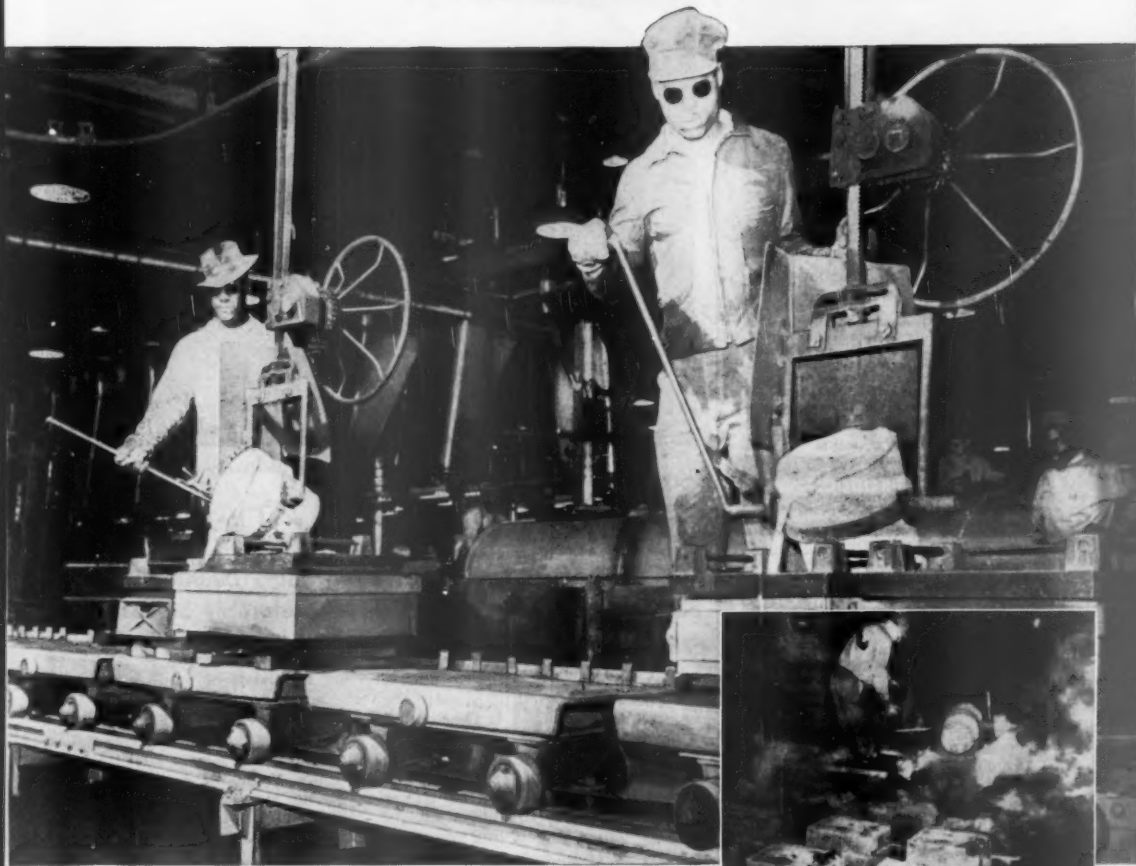
Mail order furniture has mostly been dropped from Western Auto Supply Co.'s home furnishings catalog. The company's three-year-old experiment in this line didn't develop enough business.

Integration of the shoe business (BW—Aug. 30 '52, p. 40) got another boost when General Shoe Corp., headquartered in Nashville, Tenn., bought Kleven Shoe Co., of Spencer, Mass.

A new branch of Oppenheim Collins & Co., women's wear retail store, is scheduled for the new \$20-million Merchandise Mart on the outskirts of Wilmington, Del.

Link-Belt Research and Engineering...Working for Industry

Today's foundries produce more castings ... at lower cost



... and mechanization has also made it easier for foundries to attract and hold dependable manpower

THE modern foundry utilizes production line techniques to cut costs. Conveyors speed the movement of sand, cores, molds, and castings... eliminate up to 80% of the manual lifting and carrying formerly required.

Frequently, foundries conveyorized by Link-Belt double their production in the same space.

Worker productivity is increased... labor turnover sharply reduced. Mechanization by Link-Belt pays off right from the start.

Link-Belt research and engineering have helped advance production techniques in many other fields. In fact, in almost any plant you can name, you'll find Link-Belt equipment at work.



BEFORE and AFTER—Contrast laborious hand pouring with Link-Belt mechanization! Pourers now ride on platform conveyor synchronized with mold conveyor. Ladle is suspended from trolley on overhead track. Note absence of annoying smoke and fumes.

LINK-BELT

LINK-BELT COMPANY

Executive Offices:

307 N. Michigan Ave., Chicago 1, Ill.

Plants: Chicago 9, Indianapolis 6, Philadelphia 40, Atlanta, Houston 1, Minneapolis 5, San Francisco 24, Los Angeles 33, Seattle 4, Toronto 8, Springs (South Africa), Sydney (Australia). Offices in Principal Cities.

12,000

ONE SOURCE... ONE RESPONSIBILITY FOR MATERIALS HANDLING AND POWER TRANSMISSION MACHINERY

WALKS-DRIVEWAYS-PLATFORMS

Cleared **FAST** with
the **jari**
ROTARY
SNOW PLOW

GUARANTEED
RESULTS



Cut snow removal from hours to minutes around your plant with this powerful, self-propelled Jari, Jr. Rotary Snow Plow for walks and driveways. It's self-propelled, and fast... clears 4500 sq. ft. and handles up to 18 tons of snow... per hour!

SPECIFICATIONS: 2-wheel drive, self-propelled with positive forward movement. Easy starting 1½ hp. gasoline engine, independent clutch. Clears a clean 16-inch path. Rotary rake chews hardened snow for easy removal. Adjustable casting chute. Weighs only 129 lbs. Extra attachments: 28" sickle bar or 20" reel for use as a power mower.

At your dealer or write to

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29382 Pillsbury Ave., Minneapolis 8, Minn.

SOLVE THE PROBLEM OF **OVERLOADED** SWITCHBOARDS



Quickly...
Easily...
Install

WHEELER
SOUND POWERED
Electric
TELEPHONES

Up to 12 frequently-called locations on this dependable intercom system will save your overloaded switchboard for urgent calls... save both time and money. NO BATTERIES... NO OUTSIDE POWER... NOTHING TO REPLACE OR MAINTAIN. Free from electrical hazards. Ideal EMERGENCY standby. Meets many SPECIAL needs.

Write now for full details.



the **WHEELER** INSULATED
WIRE CO., INC.
DIVISION OF THE SPERRY CORP.

1125 EAST AURORA STREET
WATERBURY, CONNECTICUT



FIVE TROUBLES for liquor dealers are cited by this book, which gives...

First Aid for Liquor Dealers

Frankfort Distillers is laying out \$100,000 a year to help retailers sell more whiskey—preferably blends of the type Frankfort makes.

The booklet pictured above bears a grim title: For Men Who Want to Be in Business Tomorrow. It is being distributed by Frankfort Distillers Corp. to about 50,000 liquor retailers who are in a grim frame of mind.

Latest figures show that tax stamps were bought for 10-million gal. of whiskey during August this year, compared with 11.8-million gal. in August, 1951. This drop-off merely continued the loss of 10.3% in apparent consumption for the January-July period compared with the same months of 1951.

• **Frankfort's Platform**—The booklet now in the mails is only one step in a retailer-aid program that Frankfort expects will cost nearly \$100,000 a year. Its particular purpose is to summarize the industry's chief problems, then to suggest what retailers can do to help solve these ills.

The pamphlet doesn't try to gloss over the plight of the liquor trade. It points to five major factors that are working against the retailer, and through him against the liquor producer: (1) the rise of operating costs against a background of limited sales, (2) big whiskey inventories, (3) the

"fire sale" style of merchandising, (4) the public's tendency to move down to lower price classes, (5) the increase in the number of brands (BW—Sep. 6 '52, p50).

Since Frankfort, a division of the Seagram organization, makes blends—Four Roses, Hunter, Paul Jones—it naturally urges retailers to solve their problems by sticking to the higher-priced blends that bring in "a good, steady profit." It exhorts the retailer to buy carefully and to avoid the fire-sale type of price cutting.

• **Other Aids**—The booklet is only one point of Frankfort's retailer-aid program. Other steps in the program are:

• A four-page bulletin called Getting Down to Cases. It is mailed to 55,000 retailers all over the country each month.

• A new store advisory department at Frankfort's New York headquarters. Store and tavern owners are invited to send queries to this department.

• A manual, now being prepared, on distributor-retailer relations.

• A proposed series of meetings for package store operators and tavern owners on how to build sales volume.



when you're a specialist—

QUANTITY PRODUCTION IS EASIER

Making special steels to meet a unique requirement is but one of the many points that make Crucible different from other steel companies. Crucible, the specialist, applies the same attention to the smallest detail . . . whether the order is in pounds or tons.

For instance, the automotive industry also looks to Crucible for tonnage of special automotive steels. And Crucible *can* deliver. As an integrated steel company you can do big business with a big business like Crucible. Call on us!

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52 years of *Fine* steelmaking

CRUCIBLE STEEL COMPANY OF AMERICA, GENERAL SALES OFFICES, OLIVER BUILDING, PITTSBURGH, PA.

MIDLAND WORKS, MIDLAND, PA. • SPAULDING WORKS, HARRISON, N. J. • PARK WORKS, PITTSBURGH, PA. • SPRING WORKS, PITTSBURGH, PA.
SANDERSON-HALCOMB WORKS, SYRACUSE, N. Y. • TRENT TUBE COMPANY, EAST TROY, WISCONSIN • NATIONAL DRAWN WORKS, EAST LIVERPOOL, OHIO



"Stereo-Realist slides are a 'natural' for sales. They're colorful, realistic, and easy to carry"

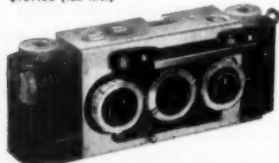
Says ROBERT GOULD, sales manager
Mobo Toys Inc., New York City

THREE-DIMENSIONAL REALIST pictures in full, natural color have unusual sales impact. That's why Mobo Toys Inc. equipped its salesmen with a light, compact set of REALIST slides and viewer. Mr. Gould reports "sensational" results—including opening new jobber accounts and stimulating the entire national sales force.

Salesmen like REALIST sales kits because the pictures are so true to life their prospects can study every detail of the product. What's more, REALIST pictures *always* get the undivided attention of buyers.

That's why present commercial users proclaim the REALIST to be "the world's finest visual selling aid." It's the ideal personal camera as well. If you haven't seen REALIST pictures, ask your nearest camera dealer or commercial photographer to show you some. Once you do you'll know why the REALIST is such a successful sales tool. DAVID WHITE COMPANY, 383 W. Court St., Milwaukee 1, Wis.

\$159.00 (tax inc.)



STEREO Realist

THE CAMERA THAT SEES THE SAME AS YOU

MADE IN U.S.A. Cameras, Viewers, Projectors and Accessories are products of the David White Company, Milwaukee 12, Wis.



LEON LOEB, head of Sound Studios, Inc., boosted his faltering recording business by . . .

Getting Clients on the Air—Free

Radio stations need public service programs. Organizations want to air their views. Sound Studios bridges the gap with recorded shows.

Radio stations are supposed to devote 20% to 40% of their time to public service programs. But they have trouble getting programs to fill the time. Organizations with a cause see this as a golden opportunity for them—but they've had a lot of trouble capitalizing on it.

• **Cashing In**—Now Washington's Leon Loeb is cashing in on this opportunity. He's bringing the groups with a message together with station managers.

Loeb not only dreams up a show—usually a forum or discussion type program that will please both the organization behind it and radio station managers—but he handles all the details of recording and distributing it through his Sound Studios, Inc.

So far, Loeb's clients are confined to organizations and trade associations. But Washington abounds with public figures and public fights—and free talent, which keeps the cost of Loeb's shows surprisingly low.

• **From Red to Black**—Loeb's scheme for packaging and merchandising free news and information didn't come about by accident. Four years ago, he took over Sound Studios. It was running in the red. Its main income was, and

still is, the cutting and sale of recordings for radio broadcasts. But it just wasn't selling enough of them.

To jack up his new-found venture, Loeb started thinking up shows of his own. Then he devised gimmicks that would make a show acceptable to 250 program directors instead of, say, 25. In a couple of months Sound Studios was back on its feet, running nicely in the black.

• **Satisfied Customers**—Loeb's target is the 3,000 or more radio stations in the U.S. The stations get the shows for free; Loeb gets paid by the group that is trying to get an issue on the air.

Loeb already has an imposing list of satisfied clients—such diverse outfits as the CIO, Aircraft Industries Assn., American Plant Food Council, Federal Civil Defense Agency, the butter lobby, and the American Legion.

• **A Natural**—The legion show, which plugged the legion's ideas on U.S. vs. Soviet air power, is a typical Sound Studios package. What Loeb did was make around 600 copies of a half-dozen or more, 15-min. discussion programs, using such free talent as jet pilots from Korea and aviation and government authorities. Loeb sent out

BRIDGING THE TIME GAP

IN THE GREAT MIDWEST
Freight Moves Faster

ON THE M. & ST. L. RAILWAY

to and from . . .

*Fast
Bridge Line
Service in the
Great Midwest*



Whether:

A Carload or a single LCL Shipment—
Consigned to or Shipped from a Midwest Point—
Eastbound or Westbound across the Country—

Freight Moves Faster via the M. & St. L.,

a vital Bridge Line Railway, and its strategic Traffic Gateways. One, the most famous, is Peoria, the Gateway that saves hours of time in transit on Transcontinental Freight. And there are other important interchange points, there the M. & St. L. connects with many Railroads.

The MINNEAPOLIS & ST. LOUIS Railway

TRAFFIC OFFICES IN 36 KEY CITIES



New Plant... Reasonable Cost

You can start *right now* to lay definite plans for your new plant layout, whether the need be for a single building or a well-arranged group!

The Truscon Standardized Steel Building catalog will help expand your vision and help support your decisions, when production schedules require new, expanded or more efficient space.

Truscon Steel Buildings are available in a wide range of standard designs. They are used for all kinds of industrial and commercial buildings because they offer fire protection, permanence, ease and speed of erection, low upkeep, low cost, high investment value. Truscon Steel Buildings have a high salvage value which permits them to be dismantled and re-erected in an entirely new location at modest expense.

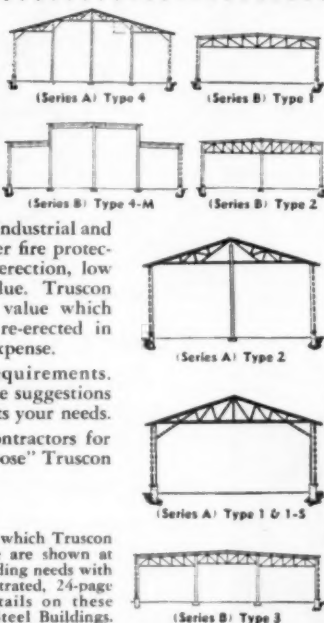
Write and tell us your building requirements. Truscon engineers will be glad to make suggestions and help you select the building that fits your needs. We will cooperate with your local contractors for the speedy erection of these "Any-Purpose" Truscon Steel Buildings.



FREE BOOK

Several standard units in which Truscon Steel Buildings are made are shown at the right. Plan your building needs with the aid of the fully-illustrated, 24-page catalog giving full details on these Truscon Ready-Made Steel Buildings. Write for your free copy today.

A FEW OF THE TYPES AVAILABLE



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Subsidiary of Republic Steel Corporation

Manufacturers of a Complete Line of Steel Windows and Mechanical Operators • Steel Joists • Metal Lath • Steeldack Roofs • Reinforcing Steel • Industrial and Manger Steel Doors • Bank Vault Reinforcing • Radio Towers • Bridge Floors

600 records—and got 597 acceptances on the first round.

The Legion show was admittedly a natural. But the same technique works in other fields. Take the American Plant Food Council. Loeb directed four 3-min. talks by such authorities as Secretary of Agriculture Charles Brannan to stations in the agricultural sections of the country.

• **Takers**—The association figured on ordering maybe 25 or 50 sets. Loeb offered to do the whole job free if there were less than 250 takers. The gamble paid off—300 takers signed up.

Loeb was hip-deep in the butter-oleo fight—working the butter side of the street. He even managed to get his record played in Decatur, Ill., in the heart of the soybean-oleo country, by teaming it up with a record presenting the Margarine Assn.'s side of the story.

• **The Difference**—Loeb admits that Washington is probably the best town in the country for this kind of business. The free talent at his fingertips makes a Loeb show an attractive medium for inexpensive publicity. A 15-min. show can be had for as low as \$7.50 to \$15. And with the equipment he has, Loeb can turn out from 500 to 600 duplicate records in 24 hours. That kind of volume is what makes the difference between red ink and black.

"Fair Trade" Loophole

When Congress passed the McGuire act (BW-Jul.19'52,p33) reaffirming resale price maintenance, a lot of people thought they saw loopholes in the law.

The government seems to have the same idea. Last week the Federal Trade Commission charged Eastman Kodak Co. with having made illegal price fixing agreements. The government's case: Eastman Kodak is not only a manufacturer of photographic equipment but a retailer as well. It has 24 subsidiary corporations under the name of Eastman Kodak Stores that operate 42 retail units. Hence, in signing fair trade contracts with 6,000 independent retailers, FTC argues that Eastman is engaging in horizontal price fixing, outlawed by the Clayton Antitrust Act.

There are two other similar suits from pre-McGuire days pending:

• **McKesson & Robbins** (BW-Jun.7'52,p51). In this case, Justice Dept. antitrusters claim that its fair trade agreements are horizontal price fixing on the wholesale level.

• **Doubleday & Co.** (BW-Jul.28'51,p47). This is another FTC case. Doubleday is a fair trading book publisher that also owns book stores.

Fair traders say that the legislative history of the McGuire act will show that fair trade agreements made by manufacturers with retail and wholesale setups are perfectly legal.



You can compress it...



...shake it...



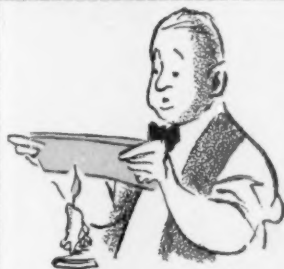
...wet it...



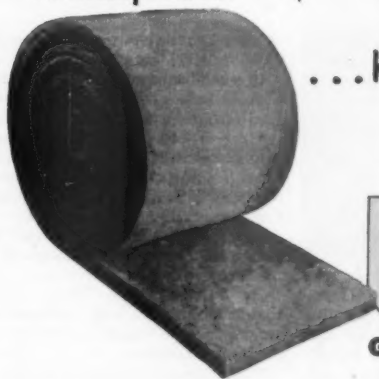
...bump it...



...bend it...



...expose it to fire...



... here's the INSULATION

THAT CAN TAKE IT!

ULTRALITE

GLASS FIBER INSULATION

No other insulation can take so many kinds of punishment—and still retain its original thermal and acoustical properties—as **ULTRALITE**, the long glass fiber insulation. And manufacturers everywhere are discovering that this rugged-yet-resilient insulation means lower manufacturing costs.

FOR EXAMPLE, Ultralite cuts application costs way down. It's easy to handle, easy to cut, quickly runs around curves and corners. It can be fastened with adhesives, wires—even staples.

FOR EXAMPLE, there's no waste with Ultralite. It

won't rot, burn, chip, dent, flake, break or deteriorate with age.

Throughout industry today, wherever there's a need for economical and permanent control of heat, cold and sound, there you'll find Ultralite. This superior thermal and acoustical insulation is widely used in transportation equipment—railroad cars, trucks and trailers, aircraft, ships . . . in metal buildings . . . in refrigerators and gas heaters . . . in piping and duct work. Write today—and you'll receive samples and full details by return mail.

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New York • Chicago • Philadelphia • San Francisco • Los Angeles • Houston • Tulsa • Fort Worth • Detroit

Keeping pace with the Nation's industrial requirements through research and development—since 1898.



GRAND OPENING of the first Fedway store, in Wichita Falls, Tex., marks the birth of

Fusing the Department and

In December, 1950, Morris Ginsburg (cover) suddenly found himself without a job at Montgomery Ward. The big mail order company dropped the ax on him while he was on vacation. But within a month Fred Lazarus, Jr., president of Federated Department Stores, called him and gave him a new job. His assignment: to bring into being an idea Lazarus had long had of following the population trend into the smaller cities (BW—Nov. 3 '51, p. 128).

• **First Fruit**—By this week the idea had taken concrete shape. On Thursday there was a gala affair in Wichita Falls, Tex., replete with celebrities and hoopla, to open the first Fedway department store (pictures). This first unit in the new chain is a two-story, full-line, modern department store in the middle of a fast-growing Texas town. (Its population has jumped from 75,000 to 90,000 in three years.) Fedway won't say, but unofficial guesses put the sales volume of the new store at about \$8-million a year.

This is just the beginning. Next week another Fedway store will open in Corpus Christi. Four more will follow in the Southwest in 1953 (Amarillo, Midland, Longview, Tex.; Albuquerque, N. M.). Another store at Westwood, Calif., is also in the works.

• **The Theory**—Essentially the Fedway formula is simple. Federated is building its new chain with an eye on the estimated U. S. population in 1960—180-million—with an income level to match. Its premise is that the popula-

tion is migrating towards (1) the smaller towns and (2) warmer climates.

It would appear that the formula is working before it has even been tested. Fred Lazarus says: "We have expanded the size of our projected operations by approximately 50%." Initial outlay for the stores thus far announced will come to about \$20-million. Of the Wichita Falls store, Ginsburg remarks: "We planned enough space for several years ahead, but we're already using up our future now."

But this is not all. There are solid rumors that before long Federated will announce new territories for its new division to conquer.

The choice of cities is half of the Fedway program. The other half is based on the premise that the market to aim for is the growing middle-income groups, which Federated says account for about 80% of consumer purchases.

• **Fusing Process**—Ginsburg and Lazarus have taken two forms of retailing and quite literally fused them:

The department store, which is basically a departmentalized store with a broad stock covering everything from household appliances to garments. The department store provides delivery, credit, and other services for its customers. It usually has a distinctive atmosphere and is run by local management, even in the case of department store chains.

The chain store, of the type made familiar by Montgomery Ward, J. C. Penney, and Sears, Roebuck. It carries



a new idea in retailing: . . .

Chain Store

a wide range of goods, but usually limits them in price range. The chain is characterized by tight centralized control over buying and advertising. Stores are uniform enough to have been turned out by a stamping machine.

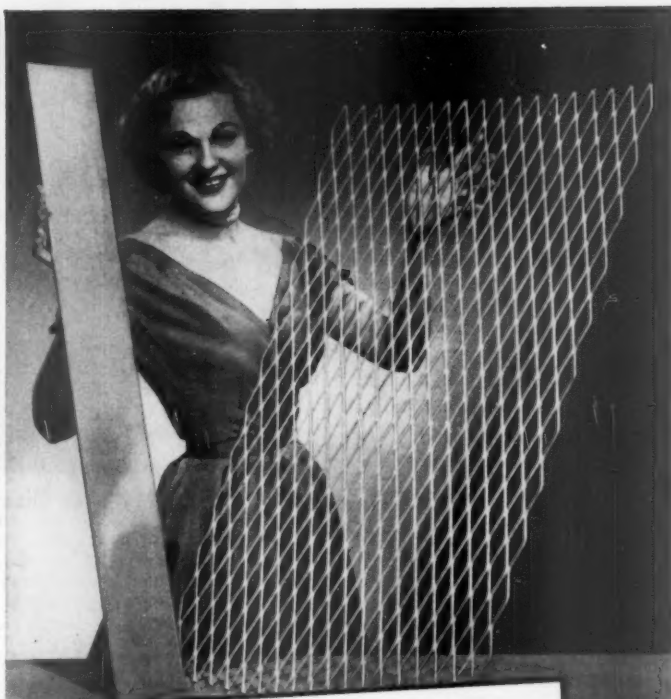
• **The Result**—Fedway is a hybrid of these two forms. On one hand it is a full-line department store carrying the usual wide range of goods in all the needed sizes and assortments. It provides all the familiar services. Its modern, trim decor is that of a department store.

On the other hand, Fedway's headquarters in New York City will keep tight reins over the operations of the stores. It will order all the goods. It will create all the advertising used locally (BW—May 31 '52, p. 44).

• **Pricing**—The Lazarus-Ginsburg revolt against tradition can be seen clearly in the way they have merged the pricing policies of the two forms of retailing.

Unlike most department stores—which generally have a price range spanning basement markdowns and Paris originals—Fedway is going to cut the range of its prices. In this it imitates the chain store. But it differs from the chain store in the point at which it cuts the prices off. The chain store is generally a lower-priced store. Fedway, aiming at that broad 80% of the market, cuts off the two extremes—top and bottom.

This isn't as simple as it might seem at first glance. You can't just lop off the extremes blindly, Ginsburg points



WHICH IS SOLID STEEL?

Answer: **BOTH OF THEM!**

The sheet of Wheeling Expanded Metal you see at the right was made from a sheet of solid steel, the size of that at the left!

Not woven . . . not welded . . . but pierced and s-t-r-e-t-c-h-e-d, Wheeling Ex-M actually becomes stronger per pound, lighter per foot than the steel from which it was made! In addition, it allows free passage to light, heat, sound and air. Ideal for racks, bins, grills, partitions and walkways . . . a thousand-and-one uses! Write today for more facts!

*It's Wheeling
Expanded
Metal!*



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WHEELING, WEST VIRGINIA.

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KANSAS CITY	LOUISVILLE	MINNEAPOLIS	NEW ORLEANS	PHILADELPHIA	ST. LOUIS
NEW YORK		RICHMOND			

Does hunting
for information
keep you
hopping?

With a P-A-X
telephone system
you get the facts you need

without leaving your desk.
You can keep your feet under
your desk—your mind on your work
—when P-A-X provides
“inside” telephone service
for your organization.
Without delay, and without
interrupting your thoughts,
you get the facts needed
for decisions...
You'll get more done,
when a P-A-X Business
Telephone System supplements
your city telephone!

In the same way, the P-A-X speeds operation
throughout your organization,
by improving supervision and teamwork.
Besides all this, it frees your city telephones
to give finest customer service. Let us send you
this threefold P-A-X story... call or
write today!

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Offices in principal cities. Export Distributors:
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PAX provides fast, easy interior communication by
automatic telephone.

PAX is owned by the user. It supplements, but does
not connect with, outside telephone facilities.

PAX keeps outside telephones free for incoming and
outgoing calls—improves service to customers.

PAX reduces rentals on outside telephone facilities.

PAX gives you control of your organization—co-
ordinates all departments.

PAX cuts costs by saving time, steps and preventing
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Fedway has the atmosphere of a department store . . .



. . . but the standardized fixtures of a modern chain

out. You have to be selective. The woman who buys a \$5 blouse wouldn't buy a \$90 street dress. But she would—and does—buy Lenox china and a \$125 wedding dress.

The Fedway policy will give it a permanent advantage over the chain stores, thinks Ginsburg. Fedway, in effect, has already upgraded to meet the rising living standards of the country. It will “sell \$2.98 blouses in a \$5 atmosphere” along with the \$5 blouses. The chains, on the other hand, will have to upgrade their operations before they can sell much out of the \$2.98 class.

• **Brands**—Equally unorthodox is Fedway's approach to the whole problem of private vs. national brands. The department store traditionally stresses national brands for prestige reasons; chain stores have pushed private brands for competitive reasons. Again, Lazarus and Ginsburg have merged the two methods. Fedway will push national brands—and the Fedway label.

But—and it is an important but—Fedway will limit the number of national brand lines that it will carry. It will concentrate on only one or an, at most, a few brands in any given line. It will then offer a Fedway private label in the price range below that.

Hence, in major appliances, Hotpoint will be the only national brand; a Fedway line will come in below that price level. In men's clothes, Botany 500 will fill the \$65 range, a Fedway label the \$45 range.

• **Losses and Gains**—Fedway stands to lose two types of customers. The first is the man who wants a \$90 suit. But the Fedway philosophy holds that customers in the above-\$65 class comprise too small a segment of the market to serve at a profit. The second is the

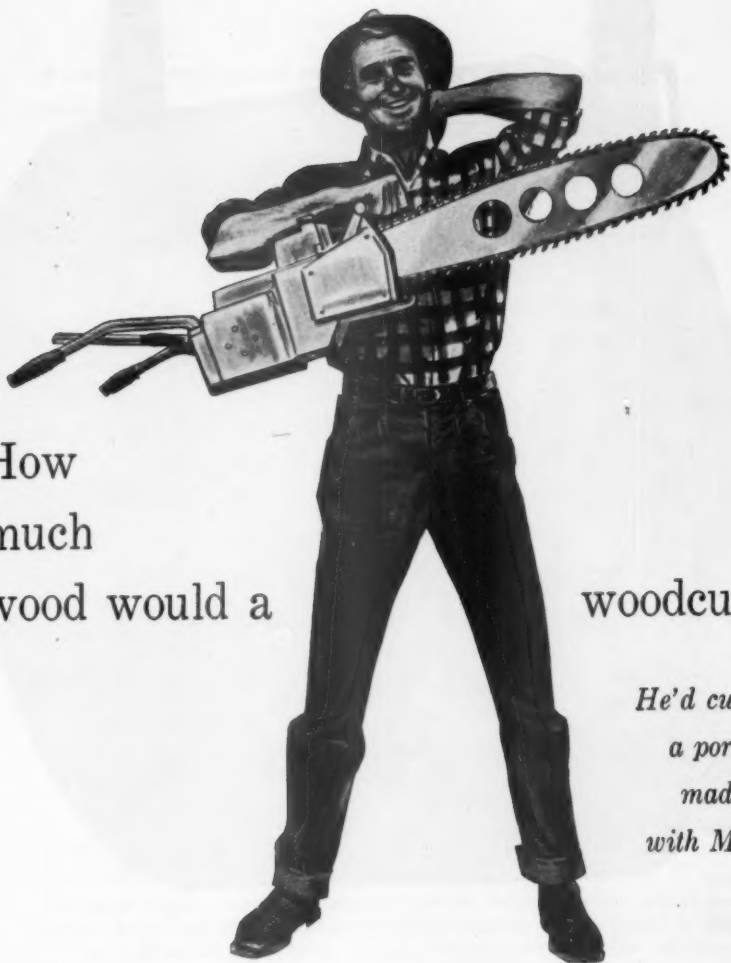
man who wants a brand the store doesn't carry—say a Westinghouse refrigerator or a Worsted-Tex suit.

Fedway's view here is that despite this loss of business, you gain in other ways. You don't have to carry so much inventory. Concentrating on one line gains the full cooperation of the manufacturer who supplies you, plus the advantages that come with exclusive territories.

• **The Men**—The Fedway formula still remains to be tested. If it works, it'll owe its success to the thinking of two widely divergent retailers: Fred Lazarus, with his background as a member of a rich, merchant-prince family that has been in the department store business for a century; Ginsburg, who came up through mass-merchandising.

Ginsburg calls himself “a typical New Yorker.” He was born in 1907 on East 100th St. in Manhattan. At 16 he started work at National Cloak & Suit Co., which later became National Belas Hess, Inc. He began as order picker, emerged nine years later as buyer of children's and women's ready-to-wear clothes. In 1932 he went to Montgomery Ward. He stayed on 17 years—a remarkable feat at Ward. When he severed connections with the concern on Dec. 31, 1949, he was first vice-president and No. 3 man in the Ward hierarchy.

The man who put flesh and blood on Lazarus' ideas is quiet and intense, with a mind that goes straight to fundamentals. After Lazarus called him in, the first thing Ginsburg did was to visit the 100 fastest-growing towns in the U.S. From them he picked Fedway cities. A colleague calls him a “walking encyclopedia of every Main St.” Ginsburg merely says: “I like to work.”



“How
much
wood would a

woodcutter cut?”

*He'd cut more with
a portable saw
made lighter
with Magnesium!*



We can't give statistics on this because, naturally, the human element varies—but we certainly can vouch for the output of portable saws made lighter with magnesium. These woodcutting wizards are the first real answer for high-speed, economical land clearing, lumbering, farming, contracting, railroading and bridge building.

Why? Because they're so light in weight! To the man lugging a power-driven saw over rough terrain, light weight is of prime importance—likewise, it's to the advantage of the contractor, if he can minimize worker-fatigue and thereby increase production.

It is with this thought in mind that leading manufacturers are specifying magnesium die-castings for the engine. This results in a great weight reduction without sacrificing strength. Because magnesium is the lightest of lightweight metals and has such excellent strength characteristics it is being used more and more wherever a product is made to be moved. When you look for light weight in the things you buy or build, look for magnesium, the world's *lightest* structural metal.

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**A nontechnical report to management
concerning profits**

They did what you can do to produce more

To produce more—yet maintain high quality—was the problem of this West Virginia Steel Mill.

Specifically, they asked Westinghouse engineers to help them develop a new line that would speed up the entire tinning process.

Westinghouse creative engineering did this:

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- Designed a special control system to guard quality regardless of line speed.

- Developed a highly synchronized drive with advanced engineering features that ties together the entire complex line.

Result:—The world's fastest tinning line—operating three times faster than the average.

This same creative engineering applies to every industry, every manufacturing process. It is a part of the total Westinghouse services you can use to your profit . . . for application, installation, disaster, emergency or periodic maintenance.

We want to do the kind of planning with you that applies these engineering services to your problem . . . to save time, to save money, to make money, to produce more with what you have.

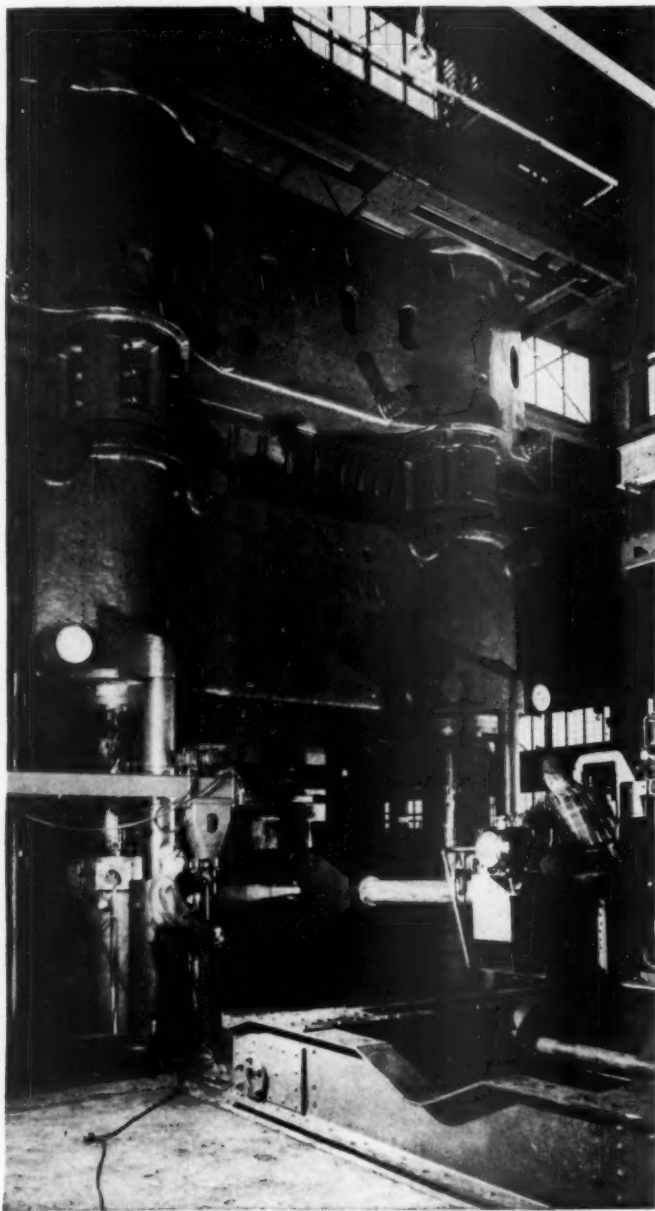
Westinghouse Electric Corporation, Pittsburgh, Pennsylvania.

YOU CAN BE SURE...IF IT'S
Westinghouse



PRODUCTION

Presses Will Forge 1962 Planes



SHEER SIZE of equipment, like this mammoth press, needed to meet Air Force's program makes the industry wonder: Has the Air Force bitten off more than it can chew?

But U. S. planemakers think they'll hit many a snag before they master the processes.

Ten or fifteen years from now, the aircraft industry will be making airplanes by methods as fast and as simple as a rubber stamp operation. But the industry is a long way from that point now, and the process of getting there is going to drive a lot of plane makers half crazy.

• **Rough Going**—To get an idea of the problems, just match the old and the new methods. Making an airplane today is mostly a matter of putting bits and pieces together. Take one section of a wing. Most of its internal parts are made separately, then fastened together to form a framework. Aluminum skin is riveted on that.

The 1962 method, in contrast, will be almost a one-shot operation. The wing section will begin as a big slab of aluminum. The slab will go into the forming dies of a huge forging press, and come out a nearly finished section, complete with skin and internal braces. Some other parts will be squeezed through dies in extrusion presses. But this kind of production for a big air force can't be done with today's equipment. It will demand many giant presses, turning out a wide variety of parts.

• **Diving In**—Last January, the U. S. Air Force jumped into a tremendous big-press program (BW—Jan. 19'52, p.23). Until then, the Pentagon's interest in the project was stop-and-go. It was afraid that the current plane buildup would have been finished before it could get a press into operation.

Now the Air Force is up to its neck in blueprints for heavy press equipment; it hopes to have the machinery running and producing some time in 1954. The \$210-million program calls for nine heavy forging presses, and 11 extrusion presses. Two of them will have 50,000-ton capacity, and the others will range from 35,000 tons down to 8,000 tons.

• **Too Far, Too Fast**—Many industry people are uneasy. Management men of companies that will supply and operate the presses think that the Air Force has temporarily bitten off more than it can chew. This is their reasoning:

• The shift from bits-and-pieces construction to whole-section production in about two years is too fast,

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considering the designs and capacity that the Air Force wants.

- The program will put too heavy demands for capacity and manpower on companies that make accessory equipment such as dies.

- The switch to new methods is a little ahead of the industry's present know-how in metallurgy and product engineering.

Industry experts aren't predicting that the program will be a total flop, by any means. The biggest single problem, they say, is one of sheer size—the enormous requirements in capacity, equipment, and manpower. The Air Force's schedule will go through—but not as fast, or as easily as it now hopes.

- **Wide-Eyed**—One reason is this: The U.S. grabbed the idea of making plane sections from forgings or extrusions from the Germans. It was a good idea. But the U.S. was in such a hurry to get going that it lost sight of a few angles.

- **Overlooked**—Some industry people claim that the Air Force overlooked this fact: German manufacturers used presses as a last resort, not as a technical advancement, simply because they didn't have the rolling mills which plane designers of 10 years ago decided was the best method of making big semi-finished parts.

The U.S., however, did have the rolling capacity. And some manufacturers turned out the first big plane parts by rolling. Now the critics think that instead of throwing away this experience and starting from scratch to learn about presses, we should use it as a jumping off place to advanced press work.

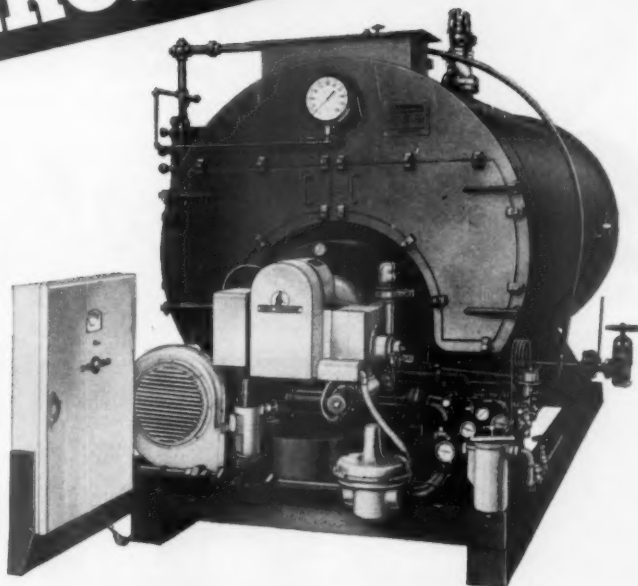
- **Down the Line**—The U.S. plane manufacturers aren't all in step by any means with the press program, even though it is being promoted by the Air Force, their biggest customer. At least one plane maker has built a laboratory filled with mammoth presses to iron out the bugs in one-shot production. Some have found that cutting and gouging out the sections on big machine tools is often more practical than press forging. And a few others are sticking to rolling mills, making the sections bigger and bigger that way.

The problems of the program go on down the line to the companies that will operate the giant presses, and make the die blocks. A good half of them feel that the project should go from sudden shift to the giant models. No one has yet completely studied either the mechanics or the economics involved in producing man-size forgings.

- **Unrealistic?**—Take die-blocks, the forms of solid steel into which patterns are cut for forging finished products. Last January, the die-block manufacturers went to Wright Field to get the word on their phase of the Air Force's program. To keep up with the capacity of the presses, the Air Force

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**FOGGED
OUT?**



**Go wash
your face!**

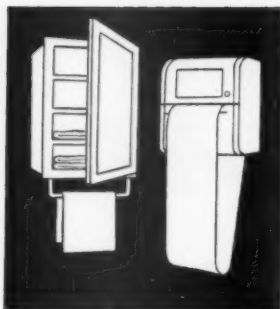


To get rid of that smoky, burned-out feeling—**GO WASH YOUR FACE.** Snap back to top efficiency with refreshing soap and water and a brisk rub with a soft, absorbent cotton towel. Rub as long and as hard as you please.—you can always depend on cotton towels to give you that clean, fresh feeling.

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asked for a die-block output that had the manufacturers gasping. Unrealistic was the word that one die-block maker used to describe the request. The figure for airplane dies alone exceeded the industry's old wartime capacity for blocks of all types.

The military recently cut down its requested capacity, but it still isn't in line with that of the die-block makers. What producers want to know is who is going to pay for all this extra capacity—and how. The Air Force claims that any necessary expansions can be paid for by the sales of more die blocks. But one manufacturer who raced home from Wright Field to get a stand-by plant ready in a record six months is now stuck with idle equipment, waiting for orders.

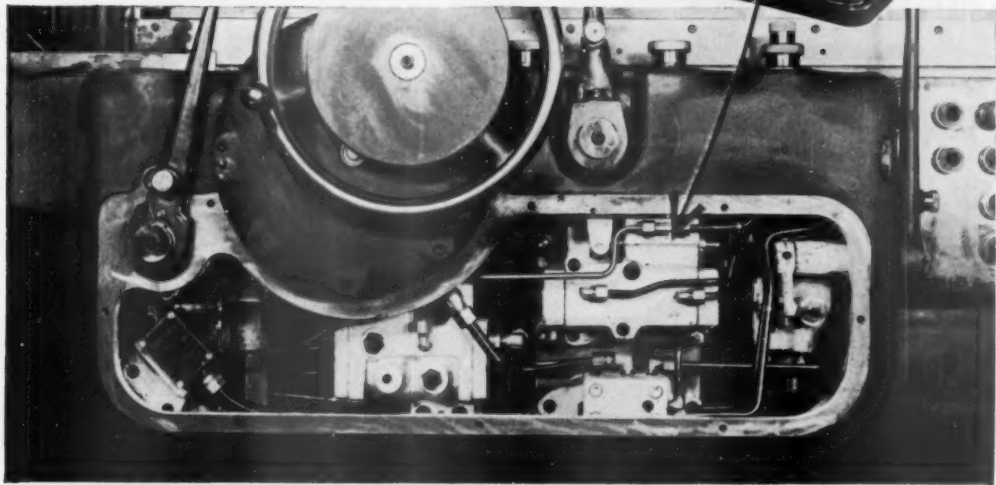
The whole press program will for a long time be more of a military than a civilian one. Private companies don't want to expand their press capacity now, and have it go begging in a purely peacetime market later. So the Air Force will probably foot the whole bill, running the program on a modified arsenal basis. It will try to distribute the presses to contractors on a loan or lease basis, but still hold the title to them.

• **Skill Comes High**—Manpower is another worry of the civilian experts, especially when they think of the requirements of a total war. A big finished die might cost about \$50,000. The steel that goes into making the die would cost nearly \$20,000. But the manpower required to carve out the die into a finished form could add up to \$30,000. The trouble is that the job of sinking a die calls for a topnotch craftsman. And the experts are wondering if there are enough of them around to meet the capacity of an all-out press program. The government has recently recognized that the trade is critical, and established a deferment policy for advanced apprentices.

A war-time press schedule would throw a lot of added complications into die making. Die output would have to be accelerated. Yet die making is a naturally slow operation, one that you can't speed up. A slip of the hand caused by haste could ruin a whole block. What's more, few if any airplane parts go beyond 100 production units before they are redesigned. So the production life of a set of die blocks would be short, and the rate of replacements consequently high.

The Air Force, according to Iron Age Magazine, has said for the record that the situation isn't as desperate as it seems. Most die shops aren't equipped to make dies for the giant presses. But, says Iron Age, "The Air Force believes it can beat the shortage by having press users make their own dies in their own shops."

Wherever you use
**HYDRAULIC
TUBING...**



Photos courtesy Landis Tool Co., Waynesboro, Pa.

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First off, there are important advantages in safety and strength—without fabricating difficulties—when you use tubing made of steel for hydraulic lines or other applications where liquids have to be carried under pressure dependably.

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in the fact that our new tubing plant, equipment and methods, backed by long years of experience, *do make a difference!*

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Less pressure needed—writes as easily as a black lead pencil.



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EBERHARD

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Taking the Thorn off the Rose

Transformers would be almost ideal from an engineering standpoint, except for one flaw: They heat up, lose efficiency. Now a company from Ohio has found a remedy.

Engineers love the transformer. It has no moving parts, no machinery to get out of order. It needs almost no attention. It just sits and works. As such, it comes about as close as anything has ever come to being an ideal piece of equipment.

But it has one flaw. To protect workers and other machinery from the terrific voltage in its coils, you have to insulate it. Usually, you do this by sinking the whole thing in a bath of oil. And here is where you run into trouble. Because oil is so good an insulator—both electrically and thermally—it blocks the heat built up by the electric current running through the coils. The wire heats up and can eventually burn out. That sets the limit on the amount of electricity a given transformer can handle.

• **Thornless Rose**—Now, from Youngstown, Ohio, there comes a hope that this one thorn can be stripped off the rose. Metal Carbide Corp. has unwrapped seven years of work on a device to keep transformers cool—and as much

as double the capacity they can handle.

The device works like this: You hook a rectifier onto the coil plating and onto the outer casing of the transformer. You tap the power line running into the transformer, feed some of that current into the rectifier. The rectifier changes the alternating current (transformers won't run on anything else) into direct current. This sets up an electric charge within the transformer—say positive on the coils, negative on the outer casing.

The oil is then in the middle, between two unlike charges. It starts moving. Molecules are attracted to the coils, where they pick up (1) a positive charge, and (2) heat. Then, since unlike charges attract, they head for the outer casing. At this point, they get rid of their heat and pick up a negative charge. After that, they head back to the coils and start the same cycle all over again.

• **Clear Gain**—This system, Metal Carbides says, cools the transformer 10 times as fast as previous methods—



Screen Test for Engine Valves

The movie camera (above) is being used to check valve performance on an Oldsmobile "Rocket" engine. Before this technique was developed, trained observation was the only concrete way to determine if valves were

operating at the standards desired. The camera, operating at speeds up to 15,000 frames per second, makes it possible to compare actual performance with theoretical standards.



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American Airlines Airfreight

Many industries have found that poor handling of freight can become a serious problem, both in terms of cost and customer dissatisfaction. That's why more and more firms specify American Airlines Airfreight, knowing that American has won wider recognition for its superior handling of freight movements.

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calculator

You'll be on target with this machine, especially for hourly basis wage calculations. All factors — regular hours worked, overtime, tax and benefit deductions — are figured quickly and accurately in one continuous operation with the Remington Rand *Printing Calculator* . . . and every figure is printed on the tape for positive proof of accuracy.

The 2-in-1 *Printing Calculator* provides double-barrelled action . . . automatic division and short-cut multiplication plus instantaneous addition and subtraction. And the 10-key touch control keyboard permits easier, faster operating efficiency. This machine is an economical sharpshooter for all your figuring tasks.

We will be pleased to demonstrate the Remington Rand *Printing Calculator* in your office on your work. Telephone today . . . or write on your letterhead to Remington Rand Inc., Room 2406, 315 Fourth Avenue, New York 10, N. Y., for an informative booklet, AC 639.



Remington Rand

which generally circulated the insulating oil mechanically by means of several pumps.

Thus, you end up with a transformer that has not only gained an efficient cooling system, but has lost none of the endearing charms it had before. It still has no moving parts. It still does its job virtually unattended. And this time it does its job better: Since it's cooler, the capacity of its coils is greater.

• **Other Fields**—Metal Carbides sees some other uses for its electrostatic device besides cooling transformers. It can be used, for instance, in a home heating unit. The burner and the heating bowl can be given unlike charges. This will circulate oxygen within the system in much the same manner as the oil is circulated in the transformer. The gas flame, consequently, will burn hotter.

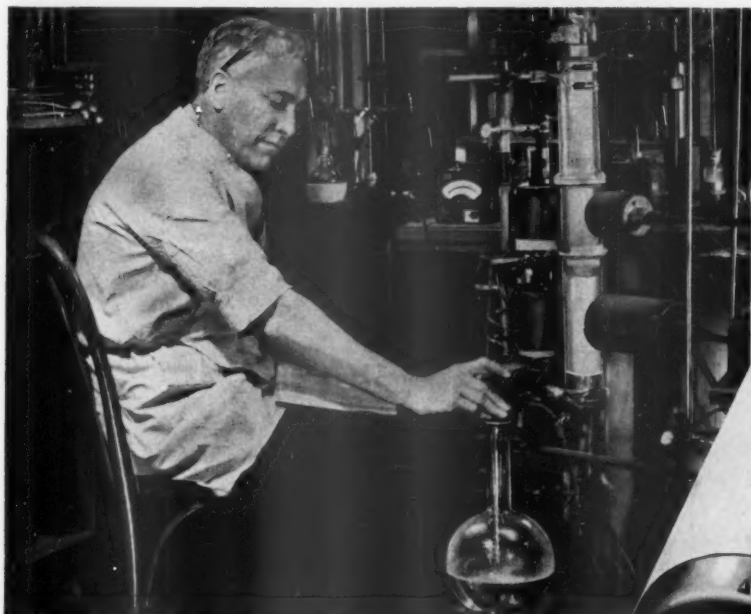
Off in the future, the company hopes to sell its idea to the food processing and chemical industries. Here, heat poses some major engineering problems. Oil refineries, too, might use the electrostatic system; they often use heat from one operation to run another. The object is to transfer heat as quickly as possible, without losing too much. Metal Carbides thinks its new device is just the thing to use for this kind of job.



Power for the Atom

Masked men in this weird scene are welders putting together the first of four huge generators which will supply electric power for the Paducah (Ky.) plant of the AEC. General Electric, the builder, claims it is the largest of its type ever built. It has a maximum capability of 216,000 kilovolt-amperes.

Rare gases up light and efficiency of new lamp



A Westinghouse Research Engineer is shown operating the rare gas apparatus in which the new krypton and argon gas fill were developed. As a result of krypton-argon, the new Westinghouse 90-watt fluorescent gives 6% more light for only 2% more current.

The light and efficiency booster in the new Westinghouse 90-watt fluorescent lamp is krypton-argon. This gas fill, exclusive with Westinghouse, takes only 2% more current to jump light output 6%. And after 7500 hours, this new lamp will still outshine every other lamp in its class.

The new 90-watt will fit present 85-watt fixtures. It will hold the level of light above your minimum foot candle value longer. It'll reduce annual cost of light. Contact your nearest Westinghouse Lamp Sales Office for more information.



**NEW
WESTINGHOUSE
90-WATT
FLUORESCENT
LAMP**

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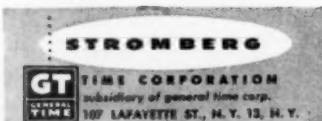
keep your time with

STROMBERG

time



JUNIOR



INDIVIDUAL _____
COMPANY _____
ADDRESS _____
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TV Camera in Yard . . .



. . . Turns Trackwalker . . .



. . . Into Office Worker

TV auditioned for a big role in rail-roading last week and got the part. Baltimore & Ohio officials, after several tests in its Barr Yard in Chicago, concluded that television could save a lot of wear and tear on stock and personnel.

In one test, a small RCA camera was set up along the yard tracks. Instead of clambering over tracks and walking between trains to list incoming freight-car numbers, a checker simply sat in a

chair before a TV screen and listed the numbers as the cars passed the unattended camera.

The equipment, designed around RCA's new Vidicon tube, consists of just two units: a small lightweight camera about the size of a 16mm home movie camera and a combination unit with viewing screen housed in a luggage-type case smaller than a home table-model TV set.



It's often within inches of your eye!

Does this look familiar? If the camera wasn't within inches of it, you'd probably recognize it in a minute. If you don't, here's proof once again that you can get too close to a problem to solve it.

It works the same way with shipping. A close-up of only part of the shipping picture doesn't tell you enough. Take cost, for instance. Does it pay you to buy shipping in parts from several different services, or complete shipping from one organization? Only by comparing service for service, cost for cost . . . can you

decide which way is most economical for you.

If you could stand back and look at the object in the above photo in its proper perspective, you'd see an everyday cigarette ash. Stand back and survey your entire shipping situation, too. Call your local Railway Express agent . . . he'll be glad to help you compare the cost of complete shipping service with the several charges you may now pay. Chances are when you look at the *whole* picture, you'll find it's easier, faster, more economical to . . .

buy these shipping services . . . in one package . . . and always use

- ★ No size or weight limit
- ★ Pickup and delivery, within prescribed vehicle limits, in all cities and principal towns
- ★ Liberal valuation allowance
- ★ Receipt at both ends
- ★ Ship collect, prepaid, paid-in-part
- ★ Ship by air for extra speed



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why
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NEW METHODS of concentrating low-grade taconite and jasper will play a big part in

Where 1972's Iron Ore Is

Industry's worries as to where it will get its iron ore 20 years hence are rapidly evaporating. There's plenty of ore, in one form or another, in spite of the dwindling supply of Mesabi's high-grade ore reserves. About half of the new ore that will be needed in twenty years will come from abroad—chiefly Labrador and Venezuela.

The big question is how fast the beneficiation of low-grade ores can be pushed. It's counted on to supply the other half.

New processes for beneficiating (concentrating) low-grade ore have convinced metallurgists that their great hope is in taconite and jasper, the abundant but low-grade ores in the Lake Superior area. Experts foresee that by 1972, at least 60-million tons of ore will be coming from beneficiation of these two ores (BW—Jan. 26 '52, p124).

• **Assist from Labor**—There's new interest in the process now. An agreement between the underground mine operators and the CIO-United Steelworkers, was followed by a 75¢ per ton price increase on iron ore.

The increase does a fairly good job of covering the wage boost for the open-pit producers, but falls from 8¢ to 10¢ per ton short of covering the increased

labor costs of the underground operators. That's because underground production averages out to between six and eight tons per man per day, while open-pit operators get from three to four times that production per man. So operators are hunting for new ways to cut costs.

• **Payoff**—What focussed interest in taconite-jasper beneficiation was the prospect of getting a product with a much higher iron content while keeping production at a rate of seven tons to 10 tons per man per day. That's because steelmakers pay for iron ore on its iron content. And this is the key to keeping labor costs down.

• **Price Leverage**—Underground mines haven't rated much attention since the debut of the open pits some 50 years ago. Open pits were the glamor girls of the industry, because they had high production and low cost operations. In spite of this the price of iron ore has been determined and pretty well set by underground mine operators, because the steady flow of the high-quality underground mined ore was needed and demanded by the iron and steel makers.

Many of the underground mines were either owned outright, or partially so, by iron and steel makers who usually

s

solving the problem of . . .

Coming From

didn't mind shifting money from one pocket to another. But it was the merchant iron ore companies—which had no direct ownership in any iron or steel making company and whose mining interests were tied in with underground mining—that set the price for iron ore coming off the Lake Superior iron ranges. And they'll probably continue to set the price since 17-million or so tons of high-quality underground ore will still be needed in the years ahead.

I. Open Pit vs. Underground

Iron ore producers in the Lake Superior region have long realized that underground mines can't replace open-pit production under the most favorable conditions. While there are reserves that will extend the life of underground mining for years to come, known reserves don't match the known open-pit reserves of even 10 years ago. But reserves of low-grade jasper, on the Marquette and Menominee ranges, and taconite on the Mesabi range, are practically limitless.

It is in these reserves, which are either owned outright or controlled through lease, that the underground op-

erators see the opportunity not only for prolonging the lives of their companies and increasing production, but also for getting on an equal footing with open-pit operations.

• **In the Works**—Meanwhile, there is no indication of any lessening of underground mining or developments. Projects that started as long as three years ago are going forward on five new underground mines, with a sixth planned when the ore available by open-pit mining—atop the proposed underground—has been removed.

Cleveland-Cliffs Iron Co., developer of Mather B, is up to its knees in getting Humboldt Mining Co.—a jasper beneficiating company—into a 200,000-ton per year unit production next year. Another larger installation, to process the huge Cleveland-Cliffs-owned reserves at Republic, Mich., is beyond the talking stage.

M. A. Hanna Co., developer of the Cannon, has dismantled its jasper beneficiating pilot plant at Groverland, Mich., after its engineers secured the wanted information on production costs and knowhow. But Hanna doesn't need to hurry: It has the Quebec-Labrador deposits as an ace card.

Pickands Mather & Co., operator of the Lawrence, Peterson, and Fortune Lake properties, has been developing the process for taconite beneficiating at its pilot plant on the Mesabi. It will spend nearly \$300-million for a full-scale ore concentrating installation.

Jones & Laughlin Steel Corp., owner of the new Tracy underground property, has been interested in beneficiating Adirondack iron ore for several years.

• **Market Holds**—As long as the need for iron ore continues, the output of the underground mines will be in great demand. But changing economic factors have made that type of ore more vulnerable from a competitive standpoint. Blast furnace operators, who used to consider underground ore necessary to melt the fine open-pit ores, have learned more about using the fine ore from the open pits.

In addition, most of the comparatively shallow underground mines have been depleted. Already iron ore is being mined at levels that were considered out of the question a few years ago. So new mines, generally, are being forced to start production at levels well below the 2,500-ft. mark—and that requires big capital investments.

• **Cost Factor**—Then, too, development costs have skyrocketed. A few years ago the average underground mine could be got into production for \$1-million or \$2-million. Now it costs from \$6-million to \$12-million to get into production a new underground mine that will turn out from 1-million tons to 14-million tons of ore per year. Because of these spiraling costs, under-

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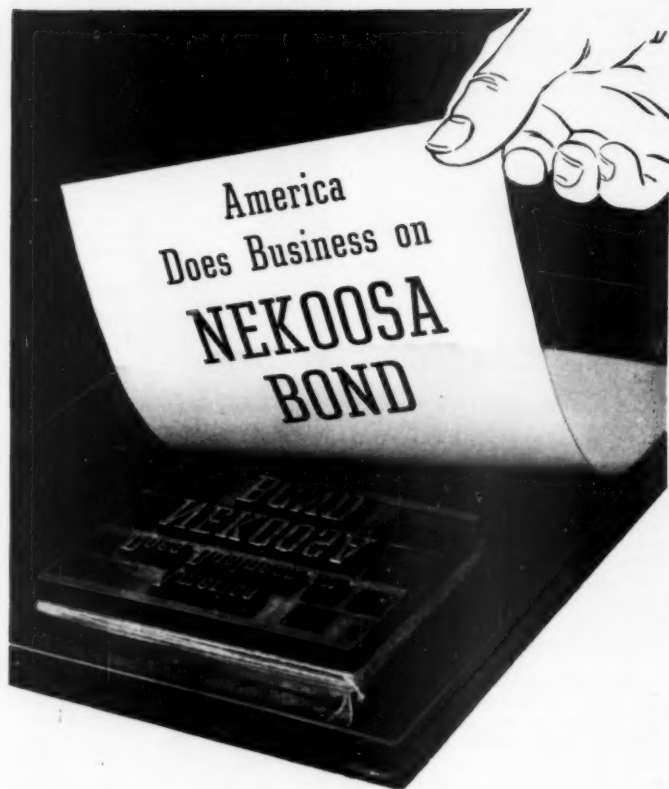
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ground mine operators look long and searchingly at the reserves now available for a new underground installation. To justify the expenditure of more than \$6-million for an underground mine that will produce 1-million tons or more per year now calls for a proven reserve of at least 15-million tons of ore.

"Should my company make available \$20-million to be used as capital investment in either an underground mine, with a reserve of 20-million tons, or in a low-grade ore beneficiation plant with hundreds of millions of tons of reserves available, I'd spend the money for a beneficiation plant," the range superintendent for one of the prominent iron ore companies recently said.

Since there are no full-scale taconite or jasper concentrating plants in operation yet, figures comparing costs on iron ore produced from underground and cost of the finished product from a beneficiation plant are available.

• **Trade Secrets**—Much to the consternation of mining engineers, an iron curtain has been drawn around the operations of both Erie Mining Co., Aurora, Minn., and Reserve Mining Co.'s first producing unit at Babbitt. The engineers see that move as a break with one of the carefully preserved traditions of the mining industry.

Mine operators in the Lake Superior area lay the blame for the iron curtain tactics of the two companies to a certain amount of jealousy involving the type of pelletizing furnace used in the concentrating process. Reserve Mining, in its initial Babbitt unit, installed three small rectangular furnaces that border close on a furnace Bethlehem Steel developed at its Lebanon, Pa., plant. However, the type furnace for hardening the pellets of concentrated ore is but one of several possibilities that Reserve Mining has planned for that part of the beneficiating project. Erie Mining, however, is known to have worked the bugs out of a vertical type furnace, 11 ft. in diameter, with 500 tons per day capacity.

Nevertheless, Erie Mining—in which Bethlehem Steel has a substantial financial stake—quickly threw a smoke screen around its pilot plant operations when Reserve Mining came up with its rectangular-type pelletizing furnace. That action by Erie Mining was followed by Reserve Mining.

• **The Dogs**—The great bulk of the jasper on the Marquette and Menominee ranges is owned or controlled by Cleveland-Cliffs and M. A. Hanna, or related interests, with Cleveland-Cliffs well ahead in amount of reserves on the Marquette range in Northern Michigan.

Cleveland-Cliffs owned outright about 250,000 acres of mostly wooded land with unmeasured underground mineral rights, a Class I ore-carrying railroad between Ishpeming and the Lake

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Superior port of Ashland, and an electric utility company. At present, the company employs about 3,000 men in its underground mines operations, and 200 more could be used to bring the Mather B into full production, with another 200 needed next year.

To complicate the employment situation in the Ishpeming area, as many as 450 workers will be needed at the Tracy underground mine of Jones & Laughlin.

• **New Capacities**—When development work on Mather B is completed sometime next year, Cleveland-Cliffs will produce about 5-million tons of high-grade ore per year from its underground mines. At about the same time, the first of two 200,000-ton-per-year units of Humboldt Mining Co. will get into production of jasper concentrate. Products from the Humboldt operation will undoubtedly go to Ford Motor Co., a financial partner in the operation, where agglomeration will be no problem since Ford has sintering facilities.

Not officially announced, but certainly in Cleveland-Cliffs' books, is an eventual 600,000-ton-per-year concentrating plant for its property at Republic. This will add an additional 1-million tons of ore for that company from jasper beneficiating. And that tonnage can be doubled as soon as problems in the mineralogy, or chemistry, of its millions of tons of reserves of soft ore jasper on its Tilden property have been solved. This will permit the unlocking and recovery of the 36% iron ore content.

Battelle Institute, Columbus, is rumored to have developed a method for magnetizing this nonmagnetic ore by using a controlled atmosphere oven, but development has not yet reached the pilot plant stage. In the process, the hematitic iron is converted to what Battelle researchers call gamma iron—which retains magnetic properties for three or four days after being heat-treated in the controlled atmosphere oven.

But with most of the problems of taconite and jasper beneficiation already licked, that form of iron ore production is edging more and more into the spotlight.

II. Beneficiation

In beneficiating a low-grade ore, what you are doing is concentrating the iron content—in effect, making a high-grade ore out of it. After a lot of experimenting, metallurgists have now worked out a practical method of beneficiation.

First the ore is ground to the fineness of cement. Then the iron oxide is separated from the waste materials. This is done either by magnetic separation or by a flotation process, depending



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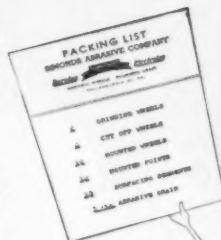
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on whether the ore is magnetite or non-magnetic hematite.

The concentrate, as it emerges from the separating equipment, is too fine for quantity shipment or blast-furnace use. It is a dust that would simply blow out of the furnace when the draft went on. So it must be agglomerated, or made into larger chunks, then pelletized—cooked into solid pellets suitable for charging a blast furnace.

On the basis of natural iron content per ton, the beneficiated ore is more attractive than the underground ore; the concentrates will contain about 62% iron as compared to the 51% or better iron content of the underground ore.

• **Choice**—Most of the Lake Superior low-grade open-pit ore is either taconite (magnetite for the most part) from the Mesabi, or hematite (nonmagnetic) Jasper of the Marquette and Menominee ranges. Mining engineers are confident that both ores can be agglomerated for slightly more than \$6 per ton; pelletizing would add an additional \$1 per ton to the cost.

As between the taconite and the Jasper, geologists claim that each has certain advantages. The low-grade hard ore to be concentrated at both the Humboldt and Republic operations has an iron content varying between 36% and 40%. In other words, you have to use but two tons of feed ore to secure one ton of finished product—which is a distinct advantage over the 24% to 30% iron content of taconite. Taconite will require three tons of feed material for each ton of finished product.

But so far, the advantage ends at just about that point. Mesabi taconite promises to be somewhat cheaper to process. It is a magnetic iron, and when heat is applied at the pelletizing stage, something similar to a chain reaction is set up. That reduces the amount of outside-produced heat necessary to harden the pellet.

The Jasper, requires outside heat for all the hardening processes.

Marquette and Menominee low-grade ores do not lend themselves to magnetic separation from silica as the Mesabi taconite does. They do work well in separation by flotation, heavy media, and spiral processes. But more plant space is needed for flotation cells—the heart of the flotation process—than is required for the magnetic separator which will recover 90% or more of the iron from the fine ground taconite.

Successful flotation depends upon a dozen variables, including the slime, density, balance of reagents used, and the presence of other elements in the feed material. Recovery of 86% to 90% of the iron from the feed material is expected to be obtained by the flotation and spiral process.

• **Unsolved Problems**—Short of pelletizing the concentrate, the processes for

separating the iron from the silica of the hard low-grade ores of both jasper and taconite are well set. But still to be evolved is an economic method for separating the nonmagnetic taconite and the soft ore jasper from their iron content.

Roasting to make the iron subject to magnetic separation is one possibility, but fuel problem for the roasting operation is a big cost factor. Development of western Canadian oil and gas deposits may be the answer to the fuel problem; and leaching with chemicals is a distinct possibility for separating the iron from the waste material.

• **Not Solved**—Pelletizing the concentrate is still one of the big problems. Erie Mining, after years of pilot plant manipulation, is rumored to have at least mastered the correct rate of feed, and the most satisfactory thermal conditions for different levels of its vertical type furnace. It is supposed to be getting an even discharge of pellets with the wanted hardness and density. There, as in other installations, one of the principal problems has been to harden the pellets just short of their fusing.

A furnace with a horizontal moving grate—instead of one in which the pellets drop vertically downward—is being model-scale tested. Such a grate-type furnace is also a possibility for roasting the nonmagnetic ores.

• **Long-Range Planning**—But time isn't vital in the development of a method for processing the nonmagnetic low-grade ores. The steel industry doesn't foresee any appreciable decrease of open pit mined ore before 1956, when the present 50-million to 53-million tons per year may shrink to perhaps 40-million tons. The present and planned production of about 9-million tons of jasper-taconite concentrates, plus imported ores estimated to reach a 12-million tons per year figure by that time, will more than take up the slack.

But by 1972, open pit direct shipping ores will have receded to perhaps 17-million tons per year and production from underground mines will remain at the present 18-million to 19-million tons per year level. An estimated 38-million tons of concentrates per year and an estimated 22-million tons of imported ores, along with gravity concentrates and Adirondack ore, will make processing the nonmagnetic low grade ores a necessity.

• **Stabilizer**—Throughout the radical changes facing the industry through that period, the production from the underground mines will act—as it has during the past 50 years—as a stabilizing influence. Underground production, as a whole, is expected to vary but little. If it does, it will be due to artificially created unfavorable factors—such as the wage dispute with the labor union representing the miners.

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An ancient scientist, the story goes, was searching for a super-hard metal. He wanted to make a knife blade so tough that nothing could possibly wear it down. A skeptical friend, though, threw a wet blanket over the idea. The friend asked: "What will you sharpen it with?"

The same problem confronts modern tool engineers. Jet engines and high-speed machinery have to be made out of super-hard metals. To machine these metals, you need even harder tools. To sharpen the tools, you need grinding wheels one step harder than that.

About the only thing harder than a modern carbide cutting tool is a diamond. Grinding wheels, consequently, are coated with diamond dust—called "bort." But even this may not be a permanent solution to the hard-metal problem: Bort is hard to come by, may get even scarcer in years to come (BW—Jun. 28 '52, p. 70).

Now several companies are coming up with a new answer. Their idea is to sharpen hard tools by an electrolytic process that requires very little bort. First of these outfits to get its electrolytic grinder operating commercially has been Super-Cut Corp., Chicago. This week, two of its machines were at work—one at Ford Motor Co., the other at General Motors Corp.'s Buick Division.

• **Plating in Reverse**—In simple terms, Super-Cut's machine operates by a sort of reverse electroplating process. The grinding wheel—simply a metal disk—is charged negatively, the workpiece positively. An electrolytic chemical such as sodium nitrate is squirted over the grinding surface much like an ordinary coolant. Small particles of metal flow from the workpiece, through the chemical, and onto the wheel. A pinch of bort can be put on the wheel to speed up the process.

L. H. Metzger, Super-Cut's president, claims spectacular savings for his machine. He points to one case where with a conventional bort-coated grinding wheel, it cost about \$107 to grind off a cubic inch of tool metal. An electrolytic grinder, he claims, did the job for 76¢.

Metzger's outfit sells a kit to convert standard grinding units to the electrolytic process. Tentative price of the kit is \$1,500.

• **Idea Men**—The original thinking on this new grinding process was done in Russia. It's credited to two Soviet tool

engineers—D. T. Vasilev and B. R. Lazarenko. When they finished work on the idea in 1946 they were hailed as industrial heroes, for Russia's supply of bort is reportedly next to nothing.

It's estimated that there are now at least 40,000 electrolytic grinding and cutting tools in Soviet metalworking plants.

West European engineers had been experimenting with the idea, too, though they were behind the Russians in developing a workable machine. Super-Cut's Metzger saw the possibilities in it when he took a trip to Europe a few years ago. Since then, he and other U. S. engineers have caught up with the Europeans in development work.

• **The Bort-Savers**—In the works right now are at least two other processes that may cut down U. S. need for bort:

• **Firth-Sterling Steel & Carbide Corp.**, Pittsburgh, and Elox Corp., Clawson, Mich., are working on an electron-sparking machine. This is a device whereby small chunks of metal can be chipped away by an electric spark. Its principal use, Firth-Sterling and Elox say, will be for drilling deep, small-diameter holes in hard metals. It'll replace solid diamond and bort-coated drills.

• **Cavitron Equipment Corp.**, Long Island City, N. Y., has come up with what it calls an "ultrasonic" grinding and cutting process. In Cavitron's setup, the cutting tool is vibrated at 16,000 to 29,000 cycles per second, through an arc of a few thousandths of an inch. The actual cutting is done by an abrasive called boron carbide instead of by diamond dust. Boron carbide is softer than bort, but the high speed of the tool makes up for this lack. Cavitron expects to deliver a workable machine in about six months.

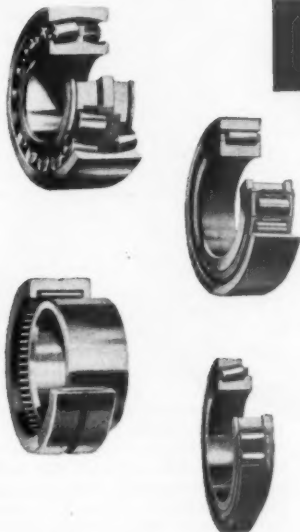
• **Supply and Demand**—National Production Authority is understandably happy about these bort-saving developments. There's just about enough bort available now to meet the demand, but there wouldn't be nearly enough in case of an all-out war.

The U. S. gets the bulk of its diamond bort from overseas. Each year since 1950, imports have jumped by about 1-million carats; this year, the total is expected to be around 7.4-million carats.

But while imports have gone up, so has consumption. Last year, U. S. industry used 500,000 carats more bort



which one?



There are a lot of conflicting claims about which type of anti-friction bearing is best. Actually, each type has its advantages. The problem is to decide which is best for the job at hand.

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ENGINEERED EFFICIENCY IN DUST COLLECTION

than it imported or reclaimed. The difference came out of stockpiles. This year, consumption is expected to hit 9-million carats—1-million more than last year.

NPA hopes that stockpiles can be held up by putting more emphasis on reclaiming used bort. Reclamation has gone up by 200,000 carats each year since 1950, should turn up some 1-million carats this year. That, together with jacked-up imports and domestic production, should just about cover U.S. needs for 1952. But it'll be a tight stretch. And what about 1953?

The only way out of this nervous situation, NPA thinks, is to develop substitutes for bort-using processes. That's where the electrolytic, electric-sparking, and ultrasonic work comes in.

How to Coat Metals At Low Temperatures

When industry latched onto the possibilities of metal coatings, it found a way to get longer wear that can mean big savings. By coating an inexpensive metal with a costly, durable one, you can turn out a part that outperforms a product made wholly of the material.

But there's always the chance that the high temperatures required for many coating processes may change the properties of the base metal, or warp the part. Last week, Linde Air Products Co., a division of Union Carbide & Carbon Corp., lifted the wraps off an inexpensive process called flame plating it thinks can lick these hitches. With Linde's method, the coating goes on without raising the temperature of the base above 400F.

Flame plating is a method of applying powdered metals—such as tungsten carbide—to metal parts. The deposit forms a coating ranging from 0.0005 in. to 0.020 in. in thickness. Once on, Linde says the coating won't chip or peel off. You can use the plated part as is or grind it to a mirror finish.

The process is adaptable for parts with a wide variety of shapes and contours—flat areas, cylinders, and holes. Linde's present equipment handles surfaces up to 6 in. wide and 40 in. long. The firm has tried it on such small parts as core rods, shafts, and bearings.

So far, Linde has worked mostly with tungsten carbide, although the method can use other metals. Preliminary tests indicate that the new process compares favorably with other surfacing methods such as fusion welding, hard facing, and metallizing. In most cases it has resulted in wear resistance equal—or superior—to that of sintered tungsten carbides, and vastly superior to that of cast alloys, hard chrome plating, and tool steels.

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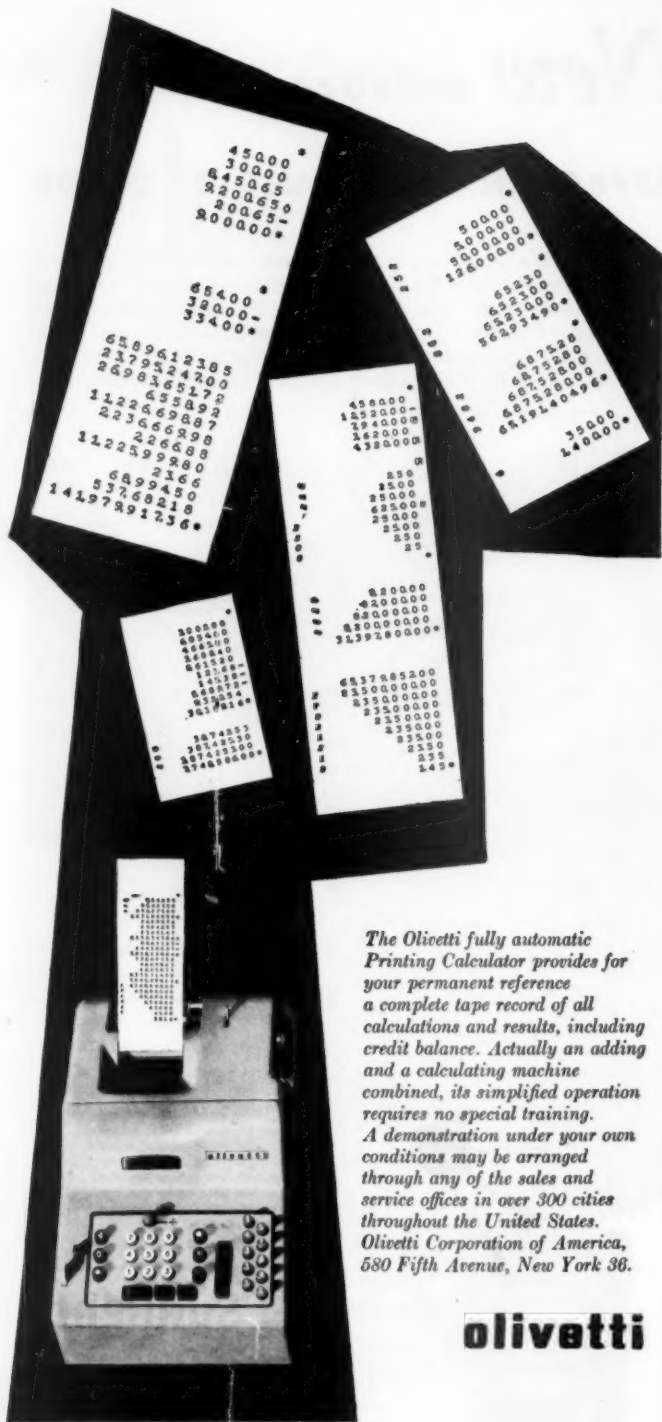
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Colleges Must Pay

Nonprofit groups will battle new ruling taxing profits on any commercial type of research they do.

The long-standing friction between commercial laboratories and the nonprofit research institutes is about to flare up. The cause is the Bureau of Internal Revenue's definition of research as it applies to income taxes. The commercial labs like it; the nonprofit groups—universities, hospitals, and the like—are up in arms.

• **Getting Specific**—For the first time, BIR defines research and pins down what income from research contracts is taxable. As a result, nonprofit groups will have to pay a tax on any profit they make on commercial testing work.

The nonprofits, naturally, are bristling. They argue that universities, for instance, should have some benefits to beef up their coffers.

• **Unfair**—The commercial labs, on the other hand, insist that nobody should get special tax treatment—especially at the expense of private enterprise.

They agree that the nonprofit groups should not be taxed on income from any kind of research they do for the government. But they maintain that if the institutions are tax-free, their research findings should be in the public domain, and should not be handed over to an individual company or organization.

Commercial testing groups have long complained that exemption of nonprofit research institutes on commercial type of work is unfair. The law in the past specifically excluded from taxation income derived from fundamental or other research in colleges or hospitals on the ground that it was related to educational objectives. But it failed to define exactly what constituted fundamental research under the tax laws.

• **Skirmish**—Last January, however, BIR proposed a regulation to prevent institutions from skirting taxation under the guise of research programs. On Sept. 3 it published the regulation which provides, in effect, that any organization which does fundamental research will not be affected—so long as it is not carried on for the main purpose of commercial or industrial application. Going a little further, the Bureau states that research, per se, does not include activities ordinarily carried on as an incident to commercial operations. That means that nonprofit research groups will no longer be able to call commercial testing or applied research fundamental and thus claim tax exemption.

Blazin' up the Blue Ridge



"BIG RED" BUILDS a new mountain highway in North Carolina. "Big Red" is the nickname for the International TD-24. Here are two, one with a 'dozer blade, the other with a ripper. Macon Construction Co., says "We have rock here you couldn't touch with a 'dozer, till the TD-24 came along. Now we blade where we couldn't scratch before, and rip up rock that used to need blasting!"

Let the Blue Ridge mountains stand for any vacation paradise.

Add 40 million American families with 52 million cars—all headed for mountain, sea shore, lake, big city, or old home farm.

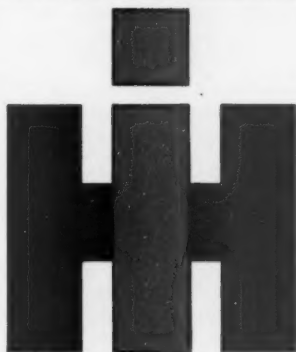
That's the call of the Open Road—shouting loud and clear—and putting greater demands on America's road building contractors than ever before in history.

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According to the latest available figures, U.S.A. production of electric welded pipe and tubing in 1950 was nearly 3,500,000 tons, a growth of 1300% in 12 short years.

Much of this growth was due to the advantages of the cold-forming, electric-weld process in general, and to the excellence of Yoder Tube mills in particular, because most such mills installed since 1938 have been built by Yoder.

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STRATOFORTRESS is the biggest, most complicated bomber ever designed. The question confronting strategic planners and aircraft manufacturers:

Is the B-52 the Last of Its Line?

Still two years from mass production, the giant 8-jet bomber may be obsoleted by guided missiles and smaller supersonic planes before it ever gets into full service.

It was only a few months ago that the Boeing B-52 Stratofortress reached the test-flight stage, and security wraps were taken off (BW—May 24 '52, p. 30). Today, it's beginning to look as though the big Air Force bomber is racing for its life. It may be obsolete before it gets into full scale production. And it may prove to have been the biggest and most complicated plane ever to be produced by man. That's because new developments in aviation seem to be bringing a return to smallness and simplicity.

• **Long Building Time**—Of course, any military plane these days faces the threat of obsolescence to some extent. But the mammoth 8-jet, 600-plus mph. Stratofortress is particularly vulnerable, for two reasons:

• **The B-52 is a slow builder.** It's just about the biggest, most complicated plane ever made. As a result, there is an inordinately long time lag between the original design idea and the final emergence of the planes on a production line basis.

• **Research and development of guided missiles and supersonic planes are running under forced draft.** The B-52s won't be in line production for two years. In that time, it's possible that they, and every other conventional-type plane, may have been run off the reservation by new developments. The Air Force is already pushing smaller supersonic bombers as successors to the B-52s it hasn't got.

• **Disagreement**—Not all aviation experts are pessimistic about the future of

the big plane. William M. Allen, president of Boeing, gives the B-52 a longer lifespan than other experts. He's qualified to judge, for Boeing is working on guided missiles as well as the Stratofortress. Allen puts the due-date for the long-range missiles a good deal farther away than his competitors do. And he thinks the B-52 can have a good period of usefulness before the supersonic bombers take over.

There are other signs that point to a continuing career for the big plane:

• **An Air Force spokesman told Congress** not long ago that the special tooling, dies, jigs, and fixtures for the B-52 are costing \$50-million. The cost will be amortized over the first four planes. It's easy to conclude that this high-priced tooling is meant for volume production. Unofficial sources have indicated that B-52 orders now stand at about 70 planes.

• **Flight test of the YB-52, first of the series to fly,** have encouraged both Boeing and USAF. The XB-52, second of the planes, is scheduled to fly any day now.

In any case, Boeing is building Stratofortress with a will out on the West Coast. In the main plant in Seattle you get a feeling of urgency. Crews are erecting massive steel structures, so huge and permanent-looking that even a trained aircraft engineer has to look twice to identify them as jigs and fixtures for the B-52. The same hurry-up feeling is evident at Boeing Field, nearby, where test pilots are push-



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★ Above: Twin Disc Model CF 3-stage Torque Converter equipped with engine cut-off clutch. Below: The Twin Disc equipped Coleman CF-55-AP Tractor towing a B-36 Bomber at a U. S. Air Force Base.

Power performance is stepping up rapidly—in civilian as well as military use. And, as they have since World War I, the nation's leading manufacturers look to Twin Disc for new and better ways to transmit the power.

For example, American-Coleman, manufacturer of the powerful 4-wheel drive Towing Vehicle pictured, found "the right answer" to the tough yet delicate job of moving 400,000-pound bombers, huge troop carriers, air cargo haulers, in the combination of Twin Disc Hydraulic Torque Converter with engine cut-off clutch and reverse gear unit.

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"... actually, a lot of advances have been made in the new bomber . . ."

B-52 starts on p. 84

ing the YB-52 flight-test program ahead of schedule.

• **Performance**—The new Stratofortress was developed to succeed the Convair B-36 intercontinental bomber, the current big stick of the Strategic Air Command. The B-36 has six piston engines and four jet engines. It was built as a long-range atom bomb carrier.

Except for range, the B-52 can outperform the B-36 by a big margin. Range, however, is vitally important these days. The B-36 can actually fly nonstop 10,000 mi.—the skepticism of its critics to the contrary. The B-52 cannot do this; its eight big Pratt & Whitney turbojet powerplants have an inordinate fuel thirst.

Because of the enormous fuel consumption, a large part of the total internal capacity of the B-52 is devoted to fuel tanks. There are also provisions for attaching huge external tanks under the wings. This still isn't enough to carry the big bomber as far as it needs to go.

Provisions are being made for aerial refueling of the B-52. This will probably be the same flying-boom refueling system that has proved successful with the smaller Boeing B-47 six-jet medium bomber.

• **New Wrinkles**—A lot of aviation amateurs have the idea that the B-52 is just an overgrown B-47 with two more engines. Actually, a lot of advances have been made in the new bomber. Most of these are the result of the five years Boeing has spent building and testing the B-47.

Take the 185-ft. wing of the B-52. Besides having about twice the span, it is very different in design from the B-47 wing. It is broader and has much larger wing flaps. The main difference is in the controls.

Instead of using movable surfaces at the wingtips, like virtually every plane since before World War I, the B-52 gets its control from a row of flaps called spoilers, about midway across the upper wing surface. These flaps are extended or retracted by power; they control flight by creating turbulences in the air flow. An abbreviated pair of flipper-ailerons, midway between the two sets of flaps on each wing, governs the spoilers and gives the pilot a "normal" feeling at his controls.

The landing gear is complicated. Eight main wheels are retracted into the belly of the plane while two little out-rigger wheels dangle from the wing



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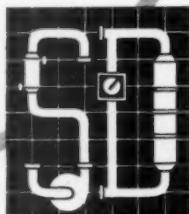
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tips. In flight tests, an F-86 Sabrejet Fighter goes along as a "chase plane" to make an external check, see if the landing gear is up, see if engines are functioning properly.

• **Production**—Building the B-52 also involves some relatively new manufacturing techniques and materials:

• **Titanium**, called the wonder metal because of its high strength-to-weight ratio, is being used in a number of places to lighten the plane.

• **Thick-rolled, tapered aluminum** sheet is being used for wingskins.

• **Glass-plastic laminate** is going into the tips of wings and vertical tailfin to provide flush-fitting receptacles for electronic equipment and radio antennas.

The Stratofortresses were designed for squadron service with the Strategic Air Command. General Curtis E. Le May and his SAC pilots wish they had some B-52's right now. Although some of the SAC squadrons now flying B-36's are already competing for the honor of being the first squadron to get B-52's, nobody is holding his breath. It will be a couple of years before the honor will be conferred—if the big bomber doesn't come in for a reassessment in the meantime.



Plastic Traffic Line

Traffic lines, a major factor in traffic safety, have long been a stumbling block to making roads cheaper, safer, and more permanent. Painted lines wear away fast. Markers are pulled out by snowplows or the suction of tires.

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Tobaccoland precedents have been shattered with the construction of a steel-roofed warehouse for Winchester Tobacco Warehouse Co., Winchester, Ky. Wood has previously been the standard roofing material because growers feared condensation on the underside of a metal roof would drip on the tobacco. This possibility has been eliminated by providing small vents around the numerous skylights. The new roof is lighter than wood, cheaper, and means less insurance.

Army ordnance has developed a mobile laboratory for checking gauges in the plants of contractors. Previously, the gauges were shipped to central laboratories. This meant that they were often out of service anywhere from 30 days to six months.



Mending a Turbine

The king-sized spool (above) is a turbine wheel in the powerhouse of Ford's Rouge plant at Dearborn, Mich. When it needed repair, the 58-ton stainless steel giant was mounted on a custom-made lathe. Here a workman spray-welds metal to the bearing shaft while the 24-ft. wheel slowly revolves on the lathe.



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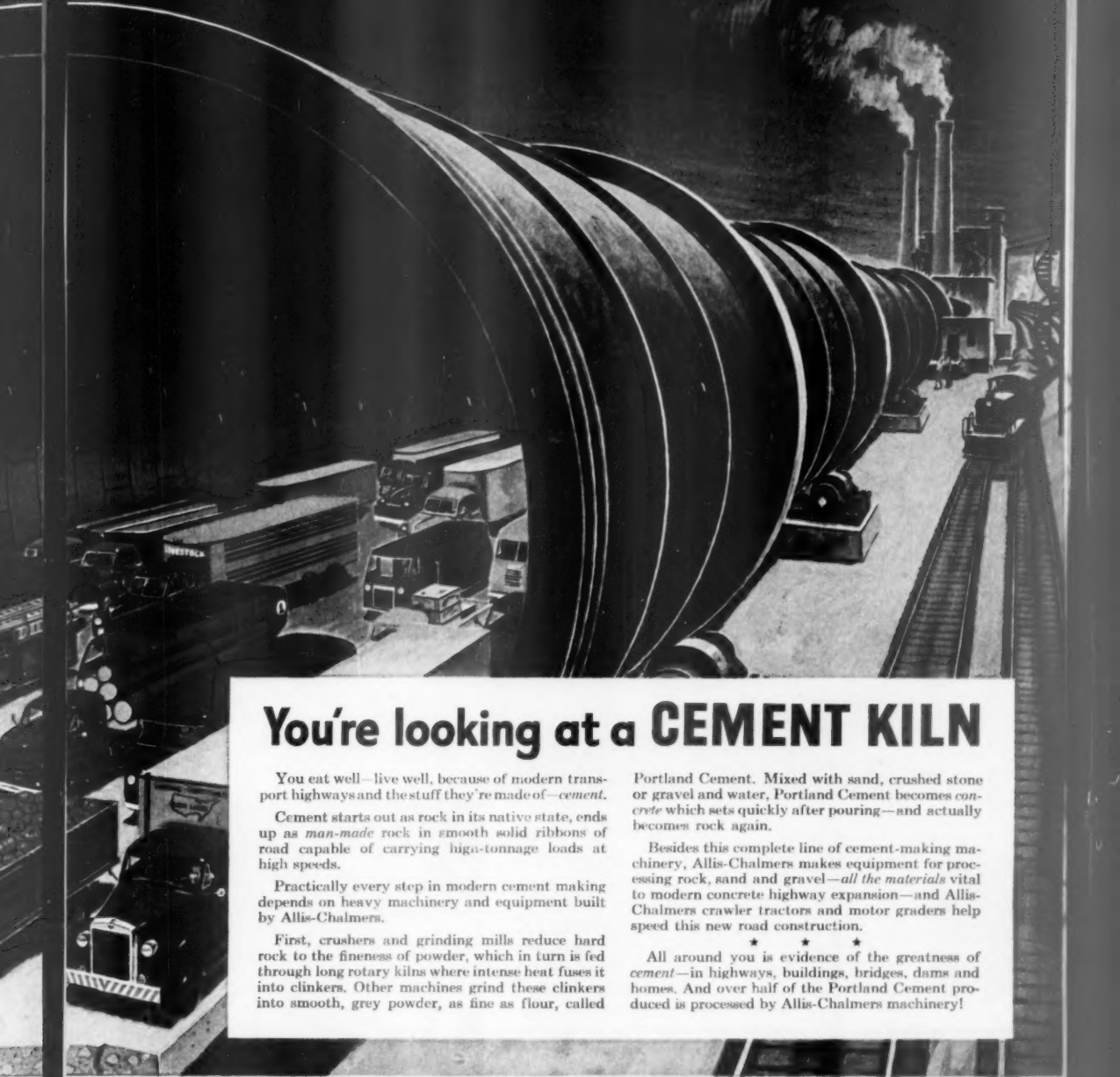


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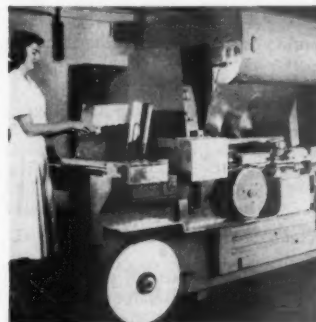
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• Price: About \$325.



Compact Cigarette Unit

A king-size cigarette may be a good thing, but the growing size of cigarette-making equipment is another matter to manufacturers. Lately, the machines have been getting bigger, eating up more and more plant floor space.

American Machine & Foundry Co.

LET A
FREE
DEMONSTRATION
PROVE...



RCA Modernphone speeds internal communications these 3 important ways

Here, at last, is real speed in internal communications—the RCA Modernphone. It's easier to use than your telephone—faster in nearly all applications than any other system. AND RCA Modernphone adds efficiency to speed, because it cuts the errors that slow up administrative routines.

Here's how:

1. No more half-messages—Modernphone has no complicated switching which often cuts the speaker in half-way through a message—cuts him out before he's finished. With Modernphone, the channel is open both ways. You hold a normal telephone conversation with a standard telephone-type handset.

2. No more errors due to half-attention—When you speak to a key man on Modernphone, he gives you his full attention. Contact is more personal—message seems more compelling—Modernphone asks for attention—and gets it.

3. No more half-clear messages—You can understand when you hear it over Modernphone. It's the quality of sound you're used to, after years of using your telephone. Modernphone doesn't broadcast your remarks. You'll appreciate Modernphone. It's

the method of doing business you know best.

Find your man in an instant

No directory, no numbers, no dialing, no delay. Just push a button, and you ring your man. Arrange your Modernphone system for three to 30—or more—stations. Give every key man the advantage of Modernphone speed.

Keep switchboard free for outside calls

Modernphone operates independently of switchboard, prevents overloading board with inside calls, lets you check with key personnel while you're talking on an outside wire.

Try it for speed in this free demonstration

Let the RCA Intercom Distributor show you how Modernphone works... right at your own desk. See if you don't think it's the fastest intercom system yet.

Because Modernphone is so simple, the demonstration can be set up in your office in MINUTES. Modernphones operate on their own battery power or may be AC-operated.

TRY MODERNPHONE, and compare it with any other system for fast installation, fast administration.

Sound Products, Dept. 26J, RCA, Camden, N. J.

- ☐ Please arrange a free demonstration of Modernphone in my office, without obligation on my part.
☐ Please send me information on Modernphone.

Name _____ Title _____
Company _____ Address _____
City _____ Zone _____ State _____



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a roll of ~~TAPE~~ **HANDS**

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Self-Stik
Waterproof
Cloth Tapes

14 colors!

Masking Tapes
for every
application

Uncoated
Cloth Tapes

Mystik
Protecto-Mask®

Mystik Spra-Mask®

Mystik Sand-Blast®

Mystik Dri-Pipe®
Insulation

The most expensive tools in your plant are **hands**. Daily they perform thousands of operations. But how many of those operations can be performed with MYSTIK Brand Tapes? A roll of "self-stik" MYSTIK Brand Tape is really a roll of **hands** . . . countless fingers that grasp, grip, hold . . . performing countless holding jobs in every phase of operation—storage, fabricating, assembling, shipping.

MYSTIK is the world's largest maker of "self-stik" cloth, waterproof tapes . . . available in *fourteen* colors . . . makes a full line of cloth and masking tapes and adhesive products to help you cut operational costs. Write for information and samples.

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MYSTIK ADHESIVE PRODUCTS, 2636 NORTH KILDARE AVENUE, CHICAGO 39.

thinks it may reverse the trend with a unit just off its drawing boards. The company's equipment is about half the size and weight of current types with a comparable output. Manufacturers can squeeze a lot more machines into existing floor space.

AMF says there are other advantages, too. The unit turns out cigarettes about 25% faster than previous models. Because it has fewer parts, it is cheaper and easier to maintain.

The machine is almost completely automatic. The girl in the picture (page 95) is a "catcher." She inspects cigarettes for off-quality, loads tray with cigarettes for the packing machine.

AMF thinks the unit will be available in a year.

• Source: American Machine & Foundry Co., 511 Fifth Avenue, New York 17, N. Y.

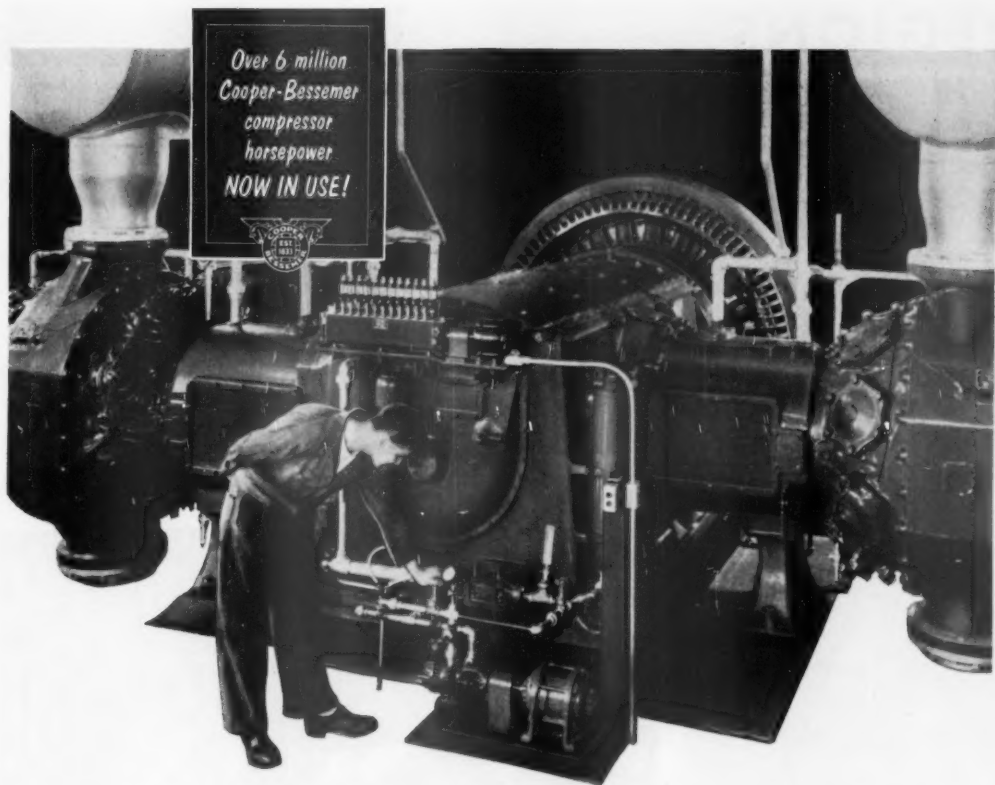
NEW PRODUCTS BRIEFS

Strenicor, a new high-strength, non-corrosive alloy made of copper, nickel, silicon, and a small amount of iron was developed by General Electric in cooperation with Revere Copper & Brass, Inc. When made by sand casting, the alloy has a tensile strength of 90,000 psi. and a yield strength of 70,000 lb. Hot forging gives it a tensile strength of 107,000 psi. and a yield strength of 83,000 lb.

Atomic goggles have been developed by L. J. Houze Convex Glass Co., Point Marion, Pa. One type, containing tungsten, is said to have absorbing power 50% higher than any present X-ray shielding glass. A second glass, containing cadmium, is called the world's first practical neutron-absorbing glass.

A small ultraviolet lamp to eliminate infection of the air in the home or office is being introduced by Hanovia Chemical Mfg. Co., Newark, N. J. The lamp, called Safe-T-Aire, plugs into any 110 a.c. outlet and can be mounted on the wall. Price is \$24.50.

A multiple-ram assembly press designed to operate in a fully automatic, automobile engine production line has been introduced by Colonial Broach Co., Detroit. It assembles a maximum of 420 valve guides per hour. Automatic inspection of press-fit assemblies is provided by a panel of red and green indicator lights. This enables instantaneous observation of the press fit of each part within the desired tolerances, shows whether it is too loose, satisfactory, or too tight.



Penicillin...or Planes...

PRESCRIPTION FOR PRODUCTION AT LOWER COST!

In any industry, wherever air is a tool, there's a good way to save money and help insure production.

For example, at Chas. Pfizer & Co., Inc., Vigo plant in Terre Haute, antibiotic processing is a *continuous* operation, requiring lots of air. Since air failure would be disastrous, it was essential to have the most reliable air compressor obtainable. The Cooper-Bessemer unit, shown above, was installed over a year ago; has been in virtually constant 24-hour-a-day operation ever since.

This kind of dependability, combined with Cooper-Bessemer's new, extremely compact, opposed-action compressor design, means unmatched over-all saving—*more air, less space, lower cost!*

If your plans call for air or power, find out about the new things being done by one of America's *oldest* builders of engines and compressors.

The
Cooper-Bessemer
Corporation

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New York • Chicago • Washington • San Francisco • Los Angeles •
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Seattle • Tulsa • St. Louis • Gloucester • New Orleans • Shreveport
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DIESELS • GAS ENGINES • GAS-DIESELS • ENGINE-DRIVEN AND MOTOR-DRIVEN COMPRESSORS • HIGH PRESSURE LIQUID PUMPS

REGIONS



John B. Mills preaches there are frontiers left in the U. S. With a Texas-won grubstake of millions . . .



IN HOTELS . . .



IN BANKING . . .

A Texan Finds Frontiers—

You hear a lot about the vanished American frontier—about how we have grown up to fill our whole country, squeezing out all opportunity as we grew. John B. Mills, a Texan who looks beyond the borders of his home state, is one of those who can't see it that way.

Mills, after years of busy personal expansion in his home state, scented a new frontier in Arizona. The horizons

he found were part financial, part physical; he's been pioneering them both with gusto and gains.

• **One Star Start**—It was in Texas that this later-day frontiersman collected his grubstake. Born 54 years ago, he finished grammar school and then went to work as a runner for the Galveston banking firm of W. L. Moody & Co. His first fortnightly pay check was \$10. Twenty-five years later things were a



... he's proving it in Arizona.



... IN REAL ESTATE

in Arizona

little better. Moody was paying him \$35,000 a year.

Meanwhile, he was acquiring capital via real estate and insurance operations. In 1930, his activities broadened out into oil, and his bank account broadened proportionately.

• **Hotel for Sale**—In 1943 came the call to pioneer beyond the confines of Texas. Mills heard that the Westward Ho, largest hotel in Phoenix, Ariz., was

Tops with the Carriage Trade—



EMPIRE CARTONS add "sell" to many of America's leading products

IF YOU'RE PLANNING to market a new product—or if your present product needs a face lifting—an Empire folding carton can help you roll up sales.

Produced under constant quality control, Empire cartons help you cut packaging costs without sacrificing packaging quality. They always meet your exact requirements for precision engineering, product protection and handling convenience, as well as striking sales appeal. And Empire's multi-plant operation helps you save on shipping cost—assures on-time deliveries.

Yes, to curry favor with the mass market, team up your product with a sales-winning Empire carton. Just call or write Empire Box today. Our representative will be glad to give you full details.



EMPIRE BOX

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CHICAGO, ILL. • CHICAGO, ILL.

3 Great Plants to Serve You



Stroudsburg, Pa.

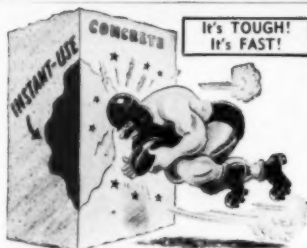
Garfield, N. J.

TWA EXPANDS CARGO SERVICE

Now TWA Super Constellations speed shipments coast to coast...add 51,000 ton miles daily cargo-carrying capacity to TWA's mighty fleet. New weekly all-cargo service to and from Europe. Fast, all cargo TWA "Sky Merchants" span U.S. overnight. Frequent flights assure direct shipments to key cities throughout U.S. and overseas. Phone nearest TWA office for rates... quick pick-up.

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all TWA flights carry
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TRANS WORLD AIRLINES
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REPAIR CONCRETE with Instant-Setting PATCH!

No need to tie up plant traffic while broken concrete floors are being repaired. Use durable INSTANT-USE—a tough plastic material which takes traffic immediately. Ideal for repairing cracks, holes, ruts. Bonds tight to old concrete... right up to a feather edge.

NO WAITING! JUST TAMP! TRUCK OVER!



Simply shovel INSTANT-USE into hole or rut—tamp—and your floor is restored to solid smoothness—ready for traffic. Special Plasticizer makes INSTANT-USE easy to scoop out of container... easy to level... easy to tamp. Use indoors or out. Immediate shipment.

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Please send complete INSTANT-USE information details of TRIAL ORDER PLAN, and HANDBOOK OF BUILDING MAINTENANCE—no obligation. (Clip and attach coupon to Company letterhead).

Name _____ Title _____
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**World's Largest
Maker of Heavy
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EXCLUSIVELY**
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DEPT. 2W WARREN, OHIO**



clues

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One friend says: "John is a typical American. He enjoys money and attention."

for sale again after bouncing around among several managements. Mills had never been in Arizona; his total knowledge of the Westward Ho was gleaned from a few photographs. But he had studied a nationwide business report which indicated that Arizona was full of fiscal goodies, for the man who was quick enough to spot them.

That was enough for Mills—his specialty had ever been spotting things quicker than lesser mortals. He bought the Westward Ho, putting up \$500,000 of his own money and financing another \$500,000 through an insurance company.

• **Keeping Busy**—Now the hotel is operated by the Westward-Ho Hotel Co. Mills is president, as he is of four companies in Arizona, 11 in Texas, and four scattered elsewhere. His score in other companies: chairman of the board (1); executive vice-president (1); vice-president (4); partner (3); director (2).

Just running the Westward Ho might have kept an ordinary man busy, considering the goings on. Mills started making improvements almost from the day he took over. In 1949 he began a now completed annex that has 150 residence units and cost \$2-million. Lesser additions included a swimming pool. The main dining room is now having a \$250,000 facelift that will bring it the new name of Concho Room.

In the hotel venture, Mills has as a partner his 29-year-old son-in-law, R. Dean Hawn. The pair figure that the Westward Ho now represents a capital investment of \$4.5-million, most of it plowed back from profits. Recently they refused a \$5-million bid to sell.

The financial climate of Phoenix



Humanity's challenge to chemical research—

Pocket Television?

It doesn't take too much imagination to picture the benefits of a TV set in your pocket. Much more than pleasure is involved... think what it would mean to business, agriculture, health, police work, countless other phases of human endeavor. And fantastic as it may seem today, "two-way wrist TV" is a real probability, and a worth while challenge to chemical research.

One of the things that may help bring this miracle to reality is fluorine, a chemical in which Pennsalt is an

acknowledged leader. Fluorine chemicals have qualities which may lead to better insulation, higher voltages, more compact and efficient parts and equipment. Perhaps one of Pennsalt's many fluorine chemicals will prove the eventual answer to this challenge... just as other Pennsalt chemicals have answered other problems that once stymied someone.

Pennsalt Chemical answers are helping people everywhere, in industry, agriculture, public health, and in the home. There is probably a Pennsalt Chemical answer to some problem you are working

on right now. If not, perhaps Pennsalt's research team can work with you to tailor-make a special answer. Write: Pennsylvania Salt Manufacturing Company, Philadelphia 7, Pennsylvania.



**Pennsalt
Chemicals**



Chemical Formula for 5-way savings

The chemical industry has a new way to save handling costs all along the line. This Hackney Stainless Steel Container costs less to ship and store—is easier and safer to use—protects dangerous or perishable products.

the formula fits your business, too

If you make, ship or buy gases, liquids or solids—the chances are good there's a Hackney Container that can lower your shipping and handling costs. Write us today for further information.

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CONTAINERS FOR GASES, LIQUIDS AND SOLIDS



**Lightweight—
for shipping economy**



**Compact—
for one-man handling**



**Easy to Grasp—
for safe pouring**



**Perfect Stacking—
saves storage space**



**Clear Lettering—
for quick identification**

Ask for a complimentary copy
of our anniversary booklet,
"Design for Progress."



"Mills is not afraid to risk his money if he believes in something. He just believes in a good thing a lot faster than most people."

agreed with Mills from the start. He began to branch out in assorted directions.

• A Shot at Oil—Oil had been good to Mills in Texas. He decided to give it a try in Arizona, undeterred by the millions of dollars that had been fruitlessly poured into exploration there over the years. His oil activities have three branches:

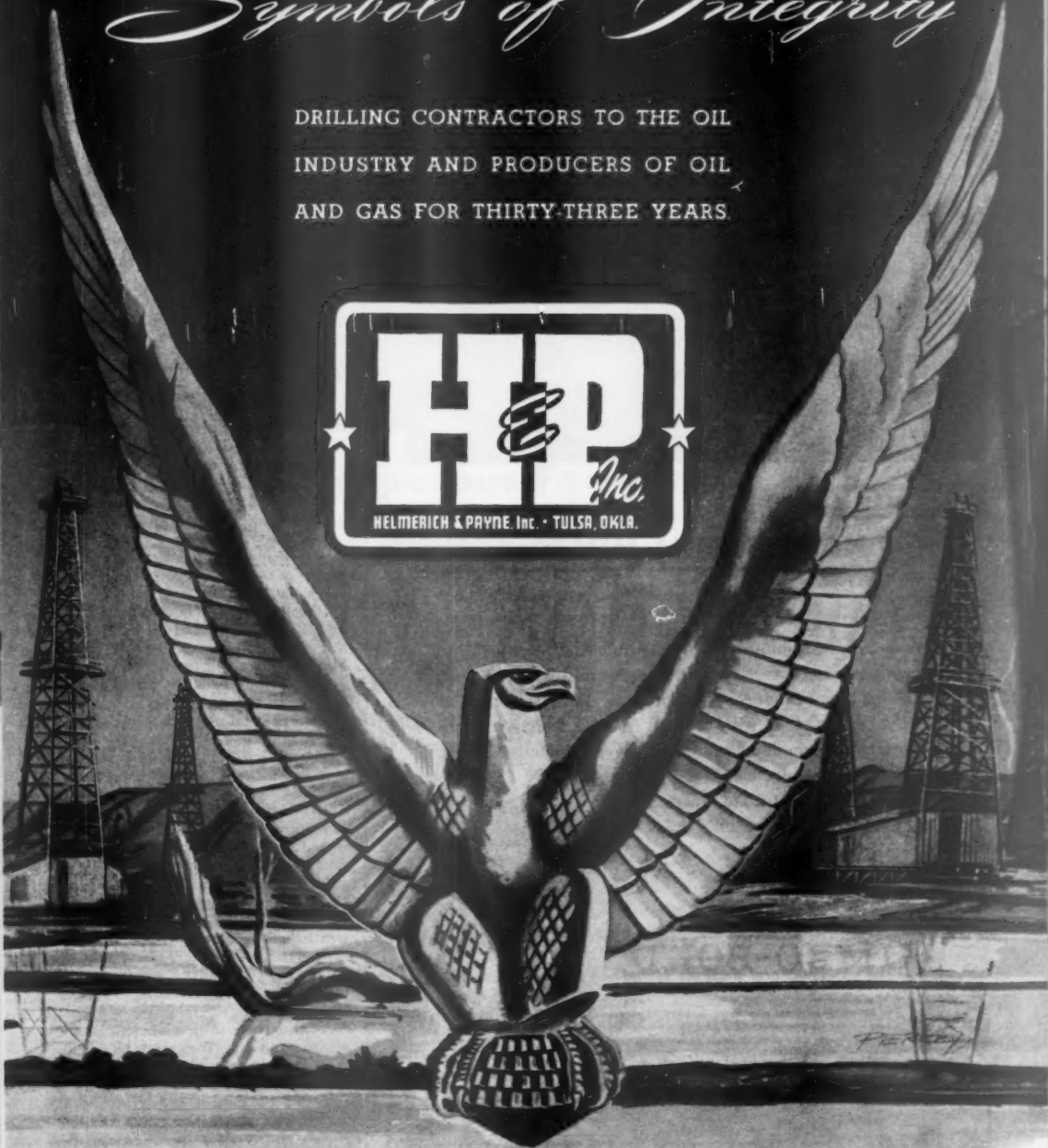
• Mills is vice-president of the Proven Oil & Refining Co. which will start construction of an \$18-million refinery in the next couple of months. The refinery will be set up on a 1,600-acre tract near Florence, 65 mi. south of Phoenix. Mills says the refinery will process 15,000 bbl. a day, supply 65% of the state's motor fuel needs, and bring a substantial cut in cost.

• West Coast Pipe Line Co. plans to sink \$103-million in a 900-mi. pipeline from Wink, Tex., to Norwalk, Calif. Plans call for the Florence refinery to be linked to the pipeline, which will also touch Benson, Sells, Ajo, Gila Bend, and Yuma in its march across Arizona. Mills says he is going to be one of the substantial investors in West Coast Pipe Line.

• Transporting and refining oil is not enough for the indefatigable Texan; he also wants to produce some of his own. Mills is president of Western Oil & Gas Co., which has leased 100,000 acres for drilling; one large block of the land is near the refinery site at Florence. Mills, Hawin, and their other partners have already invested \$200,000 in geological surveys and other prelimi-

Symbols of Integrity

DRILLING CONTRACTORS TO THE OIL
INDUSTRY AND PRODUCERS OF OIL
AND GAS FOR THIRTY-THREE YEARS.



WHITE EAGLE OIL COMPANY

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TULSA, OKLAHOMA

PROBLEM:



**"HURRY IN HERE,
MISS BROWN!..**

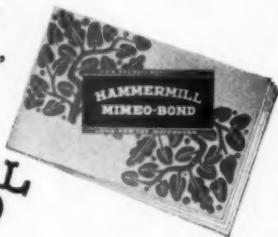
**A complete change in policy!
I've got to get bulletins off to
all our distributors tonight!"**

SOLUTION:

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**the mimeograph paper that produces 5,000
or more copies quickly from a single stencil!**

For quick, clean mimeographing of bulletins, price lists and other mailings, you can't beat Hammermill Mimeo-Bond. This fine paper produces 5,000 or more clean, legible copies from a single stencil with unusual freedom from setoff and smudging. Available in white and seven distinctive colors. Send the coupon for a free sample book and the helpful Hammermill idea book "Better Stencil Copies."



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You can obtain business printing on Hammermill papers wherever you see this shield on a printer's window. Let the Guild sign be your guide to printing satisfaction.

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Please send me—**FREE**—the sample book of Hammermill Mimeo-Bond and a copy of "Better Stencil Copies" to help me get the best out of my stencil duplicating equipment.



Name _____

Position _____

(Please attach to, or write on, your business letterhead.)

HW 10-4

LOOK FOR THE WATERMARK

IT IS HAMMERMILL'S WORD OF HONOR TO THE PUBLIC



**"Maybe he's good for Arizona,
maybe he's not. At least he
keeps everybody awake."**

naries. The boss says drilling "may begin any day." Despite the failure of all previous exploration, a lot of Arizona people think Mills has just the luck and knowhow to come up with any oil that may exist in the state.

• **Buying Land**—Real estate, one of Mills' first loves, still occupies a spot in his capacious business heart. "Hardly a week goes by that you don't see in the paper that Mills has gone into a new venture," says one Phoenix tycoon morosely. "Mills comes in from Texas and sees opportunities that have been before our eyes for a long time." Examples are rife:

In August, the Gazette announced that Mills, Hawn, and L. B. Holaday had bought 160 acres in northwest Phoenix. Plans call for erection of 600 houses in the \$7,000 to \$10,000 class, along with community facilities, and a 42-store shopping center. Total cost is put at \$7-million.

Phoenix city fathers asked Mills to diagnose their parking aches and pains. That led to formation of the Landrum & Mills Realty Co., which plans a building with three underground floors providing 437 parking stalls, and a two-floor retail store above ground. Mills had heard that J. C. Penney was going to need a new store—that's where the above-ground part comes in. The city will have title to the \$3-million structure, but Landrum & Mills figures on \$300,000 to \$350,000 a year via leasing the structure, then subleasing to Penney and the parking operator.

With an eye to development of the area around the Westward Ho, Mills formed a company which has picked up \$300,000 worth of property within a block of the hotel. This outfit owns about every sort of building except a garage, and is called the Westward Ho Garage Co.

This is merely touching a few of the high spots of Mills' activities.

Mushrooming of Mills' activities in



"America's Prosperous Farmers Are Top Customers For SHERWIN-WILLIAMS PAINT"

Arthur W. Steudel, President, The Sherwin-Williams Co.

"Farmers all over the nation know their homes and buildings have doubled in value during the past decade," says Mr. Steudel. "Good paint maintenance has become doubly important to them.

"As a result, farmers are protecting their investment against weather and wear with good quality paints.

"They are also enjoying more attractive and livable homes, decorated with such modern finishes as

Super Kem-Tone wall paint and Kem-Glo enamel;

"Sherwin-Williams products—consistently advertised in *Country Gentleman* since 1913—are enjoying unprecedented popularity today with farm families throughout America."

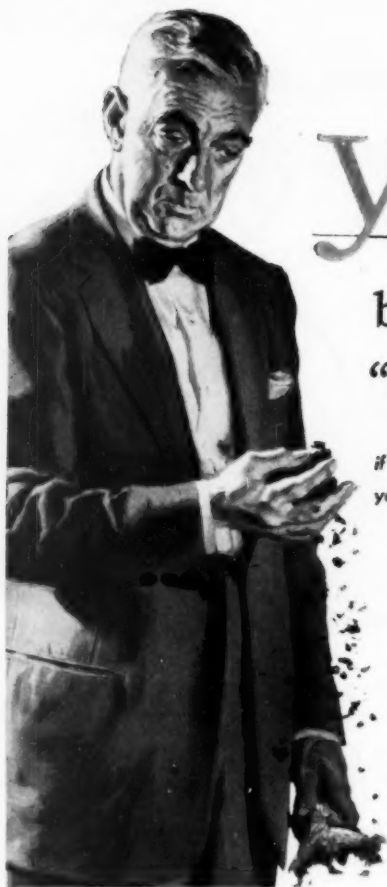
Farm families know a quality product is a better buy—especially the Top-Half income group where *Country Gentleman* concentrates its circulation of more than 2,300,000.

That is why so many advertisers...of paints and other products for better farming and better living...have made the farm family's own national magazine one of America's leading magazines in advertising volume.

Country Gentleman

... now including *Country Living*, the first complete editorial program of better living for every member of the rural family.





Would you

be the one
"to blame"...

*if fire destroyed the records
your firm needs to stay in
business?*

Think about it—*personally!* As treasurer. As purchasing agent. As an individual in any executive position.

Wouldn't you be expected to *insist* that your firm's accounts receivable and other business records be kept where they were *safe* against loss by fire?

Are they? Or are you taking the risk that puts 43 out of 100 firms out of business when fire destroys their records?

Are you entrusting them to a safe *without* the Underwriters' Laboratories, Inc. label—a safe that simply acts as an incinerator when temperatures get above 350° F? Are you counting on

a fireproof building for protection—when all it does is wall-in and intensify a fire that starts *inside* an office?

Have you read the clause in your insurance policy that says: "Proof-of-loss must be rendered within 60 days"?

After a fire is too late. Better find out, *today*, how little it costs to protect your records—and your business future—with a modern Mosler "A" Label Record Safe. It's the world's best protection.

IF IT'S MOSLER . . . IT'S SAFE

The Mosler Safe Company Since 1848

World's Largest Builders of Safes and Bank Vaults

Consult classified telephone directory for name of the Mosler dealer in your city, or mail the coupon now for free informative material.



Get your FREE Mosler "FIRE DANGERater" right away. Ends guessing. Dials your exact fire risk easily, quickly. Indicates proper protection for your records. Mail coupon for yours, now!

The Mosler Safe Company • Dpt. DW-10, Hamilton, Ohio

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☐ Free Mosler Fire "DANGERater," which will indicate my fire risk in 30 seconds.

☐ Illustrated catalog, describing the new series of Mosler Record Safes.

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"John keeps his eye on the main chance. He seldom misses. And when he hits, he hits for a whole community."

Arizona has brought no balancing curtailment of his Texas ventures. His fingers remain in numerous pies in his home state, and he maintains regular apartments in both Galveston and Dallas, as well as a suite at the Westward Ho. In each establishment he keeps a complete wardrobe—featuring expensive neckties—and thus has no luggage problems as he darts from city to city by private plane.

• **The Man**—At 54, Mills is a vigorous 6 ft. tall. His 190 lb. still pack a lot of the muscle that he put on as a boy helping out in his father's blacksmith shop. Often, when his associates are beaten down by a tough day of work, Mills is still ready for fun and frolic.

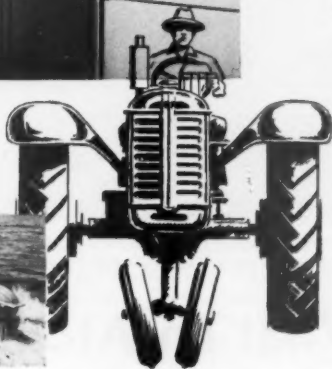
He starts a typical day by hopping into the plane bound for one of his other "home" cities. Follows a dizzying round of conference and inspections, with good long times out for luncheon and dinner, and finally back to the office at 11 p.m. to study reports and the mail.

Way back at the start of his career, Mills married Bernice Louise Ryan. They have two children: Cecil, who is 32, and Elizabeth, whose husband is the son of an early Mills associate, Richard H. Hawin.

• **Still More**—Mills and his offspring share in the \$50,000 a month income from 75 producing Texas wells, operated by three companies. One of these—the CcBeth Oil Co.—interweaves the names of the children. Mills himself gets another \$6,000 a month from various other oil royalties. On the side, he operates a 2,000-acre cattle ranch in Idaho, and another 1,000-acre ranch in Texas.



Those Wonder Finishes
You've Dreamed about Are Here...



...with Creative Chemistry
Your Partner in Progress!

Today there are surface coatings for every purpose, product and process...specialized finishes for both commercial and domestic applications...all with colors true and brilliant as a laboratory spectrum. But, many of these might never have existed were it not for RCI, pioneer in synthetic resins and prime producer of chemical colors. In the paint industry, as in the many other industries it serves, Reichhold has a long record of contributions...new ideas, new opportunities for the manufacturer—developed through creative chemistry.

REICHOLD CHEMICALS, INC.

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MANAGEMENT



MANPOWER: Albert J. Gracia was whisked from research to manage new atomic plant. Goodyear robbed itself of other key men.



H. H. Kenny . . .
From Auditing



W. A. Brown . . .
From Maintenance



G. H. Reynolds . . .
From Operations



H. C. Hilliard . . .
From Personnel

What an Atomic Bid Costs Goodyear

Losing the services of the key men pictured above, as well as many others, is one big price Goodyear Tire & Rubber Co. has to pay to run the government's \$14-billion atomic energy installation in Pike County, Ohio. Why then, was Goodyear eager to undertake the operation? For one thing, it decided the experience these men would get would be invaluable to the company later on.

This is only one of many factors Goodyear had to weigh carefully before deciding whether the estimated \$4-million a year it will get for running the plant was worth the trouble. At first glance, it hardly seems to be.

• **Robbing Peter**—For one thing, to build any plant from scratch—even a small one in your own line—usually creates a nest of management bugs. Added to that are the taxes and the extra time and effort which top management must heap on an already heavy executive load.

Most knotty of all, however, is the personnel problem. Who runs the show? First of all, if any such operation is to be successful you have to use first-rate men. World War II proved that. So you have to consider the cost of robbing other divisions of the organization of some of their best managers.

• **Chance of a Lifetime**—Goodyear added up all these disadvantages. It still found itself eager to take on what top management thinks is the biggest challenge in the company's history.

Here are some of the advantages E. J. Thomas, Goodyear president, quickly points out:

• The prestige can't help but be worth dollars and cents in industrial and commercial relations.

• Atomic energy is the most significant development in our lifetime, so any aggressive company ought to jump at the chance to get in on the ground floor.

Such an undertaking is a quick way to upgrade men who have been tapped for bigger things as soon as the opportunity presents itself.

Looked at that way, it is easier to see why Goodyear is willing to uproot part of its management organization to try its hand at a brand new field, even though the dollar return doesn't approach what industry expects from normal private operations.

• **Top Spot**—As manager of operations, the top man who has been tapped for bigger things as soon as the opportunity presents itself. Looked at that way, it is easier to see why Goodyear is willing to uproot part of its management organization to try its hand at a brand new field, even though the dollar return doesn't approach what industry expects from normal private operations.

As aides, Gracia will have a couple of men who can transfer their special knowledge to the new job. For instance, H. H. Kenny, at 59 the oldest of the group, has been works auditor

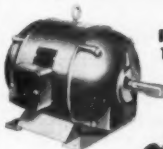
Try the new ultra high-speed Skil Grinder if you want to see—and feel—something new in grinder performance. Packs twice the power per pound of any other grinder . . . tool and die makers say it's the best they've ever used!

90,000 MILES... without a breakdown!

An example of Robbins & Myers Motor Engineering that will interest the executive with motors in his product

CUSTOM-DESIGNED OR STANDARD...

There's an R & M motor that will meet your exact requirements!



Integrals—to 125 horsepower

Fractionals—from 1/200 horsepower



Matched Motor Parts—for built-in applications

*If it's an R & M,
it's the Right Motor!*

Skilsaw, Inc., wanted the best for the brand-new 1" Skil Grinder you see above. The motor, for example, had to be light-weight, compact, powerful—and capable of running for long periods at 36,000 RPM! As they have for the past 25 years, Skilsaw gave Robbins & Myers the motor space limitations . . . told us to take it from there.

600 revolutions per second is going some! To withstand the high centrifugal force built up, we designed a special motor, dynamically balanced, with a diamond-turned commutator and special windings that would stay in place. Result? During a test which has run 881 hours to date, the armature has traveled about 90,000 miles at 102 m.p.h. without a single breakdown! And to top it off, this Skil Grinder has twice as much power as other grinders of similar weight.

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Bulletin 455 gives details and specifications of "Motor Parts for Portable Tools." Write for a copy—no obligation, of course. Robbins & Myers, Inc., Motor Division, Springfield 99, Ohio.



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In the early days of the oil business, the recovery of crude was limited to the oil that was forced to the surface by bottom hole, or rock pressure. Then various pumping methods were developed to lift as much of the valuable fluid as possible. In many cases, wells were abandoned after only 15% of the oil had been produced.

Now, a method known as water flooding is used to make depleted wells productive again. In certain adaptable areas where production by pumping is no longer profitable, water is forced into the ground, through an old well or one specially drilled, and the water pressure helps raise the oil to the surface in neighboring wells. Through this method some old oil fields thought to be pumped dry are brought back to life. This method can also be used to aid primary oil recovery from new oil fields.

Water flooding is only one of many features of SUNRAY's aggressive program in the conservation of oil reserves . . . SUNRAY's progress and America's progress go hand in hand.



SUNRAY's water flood operations, in one division, set a new company production record in 1951 by averaging 1,975 bbls. daily. Five additional projects utilizing repressuring methods are now being developed by SUNRAY's engineers.

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for the Goodyear Synthetic Rubber Corp. which operates the synthetic plants for the government. He will manage the finance division.

• **Upgraded**—Others will be tackling jobs a step or two above their present posts. Here's the lineup:

James A. Merrill, 45, will head the laboratory division. One of Goodyear's ace researchers, he has been assistant manager of research since 1946.

D. H. Francis, 35, manager of development engineering. He manages the Houston synthetic rubber plant.

George H. Reynolds, 46, manager of production division. Another MIT graduate, he has been in charge of the subsidiary, Pathfinders Chemical Corp., in Niagara Falls, and vinyl film and flooring manufacturing in Akron.

W. A. Brown, 50, manager of staff engineering and maintenance. He was plant engineer at the Gasden, Ala., plant and later became manager of engineering.

J. S. Gharky, 45, manager of purchasing and materials division. He has served as company purchasing agent in Sweden, for Goodyear Aircraft Corp. in Phoenix, Ari., and in the Australian plant.

Company officials say they don't know yet what the full impact of the AEC project will be on their organization, but they say a considerable number of technicians will have to be shifted over.

• **Bit by Bit**—It will take four years to build the atomic plant. Goodyear will put individual units into operation as fast as they are completed. That way the organization will be learning the business bit by bit. When it is going full tilt, the Pike County works will have a payroll of 4,000.

• **Well Suited**—Why was Goodyear picked? On the surface, atomic energy appears to be far removed from the tire industry. But as a tire maker and synthetic rubber producer, Goodyear has plenty of experience in running plants with continuous flow operations, one thing AEC was interested in.

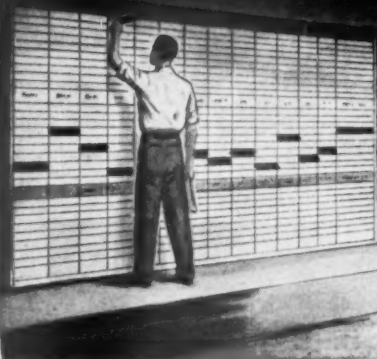
Besides that, Goodyear has a lot of knowledge of the chemical industry and has had experience in the use of large quantities of electric power. In picking Goodyear, AEC also could check the company's record as operator of government-owned synthetic rubber plants, and a powder bagging plant in Charleston, Ind.

To carry out the Pike County project, Goodyear has set up a new subsidiary, Goodyear Atomic Corp. Most of the officers of the parent company will have the same titles in the subsidiary. Responsibility for atomic operations will be tied to Akron headquarters through Russell DeYoung, 41-year-old vice-president in charge of production for Goodyear operations.

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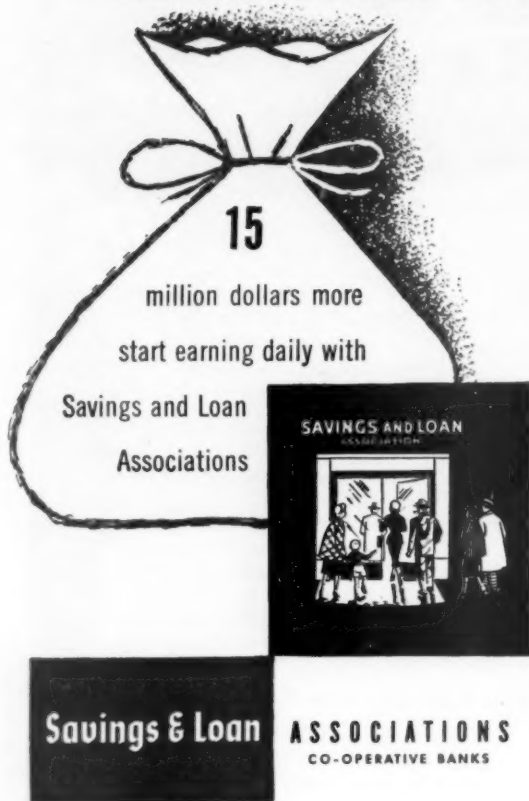
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*The same general type of institution is also familiarly and legally known as: co-operative bank, building and loan association, homestead association, savings association, building association.

Changing Ways To Pay Top Executives...

What happened in two years at 164 companies

Companies Paying	1949 Number	1951 Number	Changes From 1949 (Number of Companies)
Salary	163	162	- 1
*Cash Bonus	71	81	+ 10
Pension	130	141	+ 11
Deferred Payment	6	10	+ 4
Stock Bonus	5	7	+ 2
Stock Purchase	8	11	+ 3
†Stock Option	6	17	+ 11

*Includes profit sharing. †Includes stock warrants.

Survey: Booz, Allen & Hamilton

©BUSINESS WEEK

How to Make a Raise Worth It

A raise today is only as good as the way it's paid. So more companies are using package plans to boost executives' take-home pay.

Ever since taxes became so fat, they have cast an increasingly broad shadow over every phase of a company's operation. It has got to the point now that when a businessman makes a division, he has to count in Uncle Sam as a partner in the transaction (BW-Dec. 15 '51, p19).

That is nowhere truer than in the care and feeding of executives. There was a time when the only salary consideration a company had to worry about was how much of a raise a man was worth. Now, because of high taxes, companies not only have to think about how much to pay their executives, but the even more important question of how to pay them.

That's because the method can determine what the executive's take-home pay will be. Straight salary increases will do the trick, of course—if they are big enough. In the high tax brackets, however, the increase has to be so large it becomes almost embarrassing—and costly to the company.

On top of this, of course, is inflation, which also eats away the buying power of regular income.

• **Pay Package**—These two facts prompted Booz, Allen, & Hamilton, management consultants, to check on 164 companies in 27 industries to find out what's happening to executive pay (table). They picked the two-year period, 1949 to 1951, because then there was a sharp tax boost on individual income and a major inflationary bulge.

The conclusion you can draw from the survey is this: There is a definite trend toward supplementing straight salaries with other forms of direct or

indirect compensation. If taxes stay high and prices keep climbing, the time may come when an executive will be looking, not at a job's salary level, but at what the company offers in the way of a complete pay package.

• **Four Ways**—Already, according to the survey, well over half of the companies use three or more types of compensation to pay their presidents. (The survey was confined to presidents, but it is safe to assume top officers generally are included when companies change their salary plans.)

The largest number of pay schemes for a president that any one company used was four. Of the 164 companies, only 6% used four methods in 1949. By 1951, the percentage was up to 15%—a sizable gain in the short period covered.

• **Favorites**—One of the most popular devices used was the stock option plan, a direct result of the 1950 tax law which made these more attractive tax-wise. Next came pensions, paralleling the growth of that form of fringe benefit to rank-and-file.

Cash bonuses also became more popular. The figures don't distinguish between straight bonuses and profit-sharing. Many companies have adopted some form of profit-sharing in the past few years, because they tie executive pay directly to over-all company performance and also take into account inflation as reflected in the profit picture.

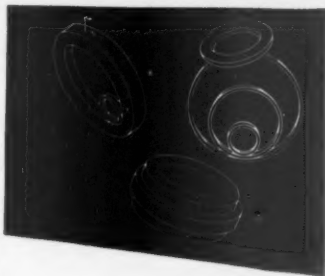
• **Less Popular**—Far down the list of executive pay schemes are deferred compensation and stock bonuses. The reason in both cases is easy to see:

• Stock bonuses are considered di-



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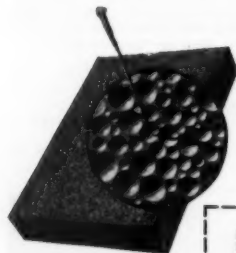
• You'll have to admit that this is one of the most striking office-research buildings ever erected in the South—or anywhere else for that matter.

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RAISE starts on p. 113

rect income, so companies have found too often that an executive has to sell his bonus shares in order to pay the tax on them.

• **Deferred compensation contracts** can be an ideal way to pay executives, but they don't always stand up against the tax laws. They help spread the executives' tax load by holding off some of his salary until a period when lower earnings cut tax bills—or taxes themselves are reduced. Such methods apparently hold up as long as they are (1) used to keep executives in the family and (2) the executive fulfills certain requirements before getting the part of the salary that is deferred. Even so, there has been no clear tax decision on these deferred contracts.

• **Many-Purpose**—Judging from the survey report, Booz, Allen, & Hamilton apparently think the trend toward multiple pay plans is a good one. That's because if a compensation plan is going to work today it has to serve all of these purposes:

- Give executives relief from the tax squeeze.
- Provide security for officers during their employment and after retirement.

- Provide enough pay, but in such a way that it will be acceptable to stockholders.

- Be reasonable in the eyes of junior executives and employees.

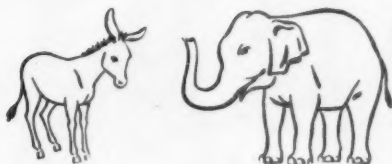
- **Flaws**—No single method of payment can meet all the requirements. In almost every conceivable method there are drawbacks of some kind if it is used alone.

Take bonuses. They can help spur management beyond perfunctory performance, but they are subject to a heavy tax bite. There also is the temptation for executives to stress certain parts of the business where results will pay off in a maximum bonus. If all the executives have to shoot for is the bonus, they may neglect long-range goals.

Pensions, too, are faulty by themselves. For one thing, they don't keep pace with inflation. In order to be tax deductible for the company, they have to cover a broad section of the company's employees, thus limiting the size of the officer's share. Special executive bonuses may run into sticky tax problems.

Even stock options, which until recently seemed an answer to both taxes and inflation, are now under attack in the courts.

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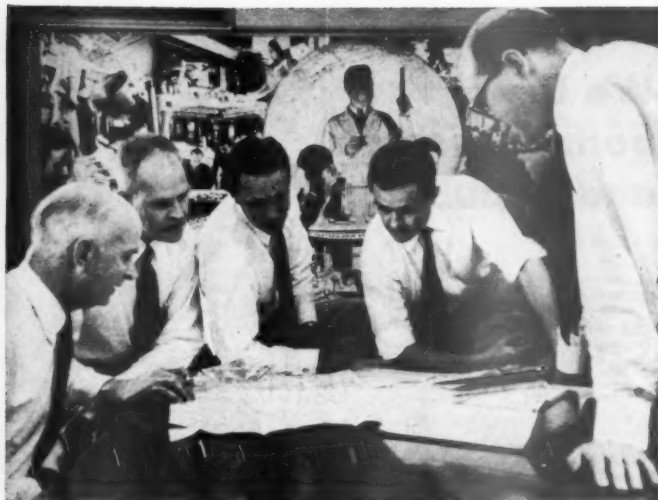
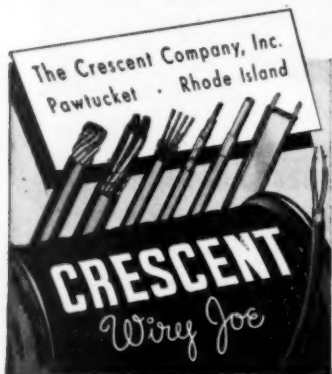


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PLANNING A SHOPPING TOUR for subsidiaries, Vick's acquisition chief, H. R. Marschalk (third from left), confers with his aides. Diversification has put Vick . . .

In the Market for Companies

Vick Chemical Co. is shopping around for subsidiaries to hedge itself against developments that might affect its cold medication business.

Practically every day next week Hugh D. McKay, 60-year-old former board chairman for a couple of Vick Chemical Co. subsidiaries, will be rapping at the doors of Connecticut manufacturers. He's been doing that now for the last two or three months. Instead of selling a product, however, McKay is looking for something to buy—specifically, any company that will fit into Vick's program of diversification.

• **Out Shopping**—McKay, now an independent management consultant, with Vick as a client, works for that company's small but full-fledged department of acquisitions (picture).

The department was formally commissioned early this year when H. Robert Marschalk was elected a vice-president with the sole job of running down companies which Vick might want to buy. To help him, he has an assistant director of acquisitions, an investment consultant, and a director of market research. McKay is the front man who makes the initial contact with prospective Vick subsidiaries.

• **Learning the Ropes**—So far Vick's new acquisition department hasn't acquired anything but experience. How soon it will be able to show results, Marschalk isn't saying.

• **Where to Look**—Connecticut is the first area Vick has looked at through

its new department. McKay still hasn't finished ringing the last doorbells in that state. When he is, he will have another area—part of New Jersey—to visit.

Working by geographical areas is basic to Marschalk's system of finding companies Vick is interested in. He picked Connecticut first because it has a concentration of industry and because it is close to Vick's New York headquarters.

• **Sifting**—Once an area is selected, Vick uses Dun & Bradstreet records to sift out companies that seem likely to fit Vick's broad specifications. These specifications are purposely flexible—and might include anything from a sulfur mine to a company making a small specialty product. Chiefly, though, Vick wants to add specialty products to its line, rather than some broad general classification. That sifting brings the companies to be investigated down to a reasonable number. It is here that McKay steps into the picture. He approaches prospects cold, armed only with a leather-bound brochure showing just exactly what Vick is. He frequently finds on his initial appointment that this is the first time a company president has thought about selling out.

Up to now nobody has resented Vick's offer to buy. The theory is

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For years, ultra-precision has conjured up pictures of Swiss watch makers; perhaps an Alp.

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The most marvelous measuring machines known come from a town in Minnesota, St. James. Tiny, jeweled beauties, or big monsters which measure 8-foot objects in thousandth and ten-thousandth inch increments, Tumico micrometers represent precision undreamed of in the past. (Curiously, micrometer-makers retain their special skills within a family, just like watch makers!)

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simply: No man ever insulted a girl by asking her to think about marrying him. Usually, a company is more than willing to sit and listen to Vick's story of what it is trying to do.

• **Behind It All**—The modern part of that story goes back to the time the Lunsford Richardson family, which founded the company in 1890, decided that they had better diversify. The reason: Vick had been built on patented medicines for treating the common cold. Someday a cure for the cold might be found—putting an end to Vick's chief product.

• **Adding On**—In 1938, Vick bought the Wm. S. Merrill Co., old-line pharmaceutical house. By 1946, Vick had bought out six companies. Five of them are now subsidiaries—Prince Matchabelli cosmetics; Alfred D. McKelvy Co., Seaforth men's toiletries; J. T. Baker Chemical Co., industrial and laboratory chemicals; Jensen-Salsbery Laboratories, veterinary medicines; and Solskin Co., hand cream (operated as part of Vick brand products).

These additions enabled Vick to raise its sales volume from under \$10-million in 1935-1936 to \$53.9-million for the year ending last June 30. Earnings after taxes hit a record \$4-million in 1950-1951, were only slightly under that in the latest period.

• **Permanent Addition**—After 1946, Vick dropped its acquisition program. It wasn't revived until this year. The company intends now to keep the acquisition department a permanent part of management. To run it Vick chose one of its bright young men. Marschalk is 37, a hard-driving salesman who joined Vick after he got an A. B. degree from Dartmouth in 1937. Three years later he was assistant sales manager of Vick, then sales manager of McKelvy. He was president of McKelvy and Prince Matchabelli before he got his present assignment.

In talking to companies it wants to buy, Vick explains how each subsidiary has grown under Vick. Gains ranged from two to ten times as much business.

• **The Name Sticks**—Once Vick buys a company—usually by a stock trade—it keeps the company's name and sets up the new subsidiary as a distinct operating entity with its own president and management organization. More often than not the management comes from the ranks of those who ran the company before it became part of Vick.

The parent company, manufacturing its own line of Vick trademarked products, acts as a management advisory staff to the subsidiaries.

• **Well Prepared**—Even though Vick has launched a new drive to diversify, a cure of the common cold could be fairly easily taken in stride right now. In 1935-1936, Vick home medications

accounted for its entire sales volume. Those products still add up to about \$22-million of total sales, but more than half—\$31-million—comes from the five subsidiaries.

The aim of Marschalk and his new department is to cut the Vick products' sales percentage even further.

MANAGEMENT BRIEFS

General Electric Co. brass, led by Ralph J. Cordiner, president, started this week on a 2,500-mi. swing around the country. Executives will have a series of day-long sessions with supervisory and professional personnel in eight GE cities. The first meeting was held Monday in Schenectady for about 500 management men.

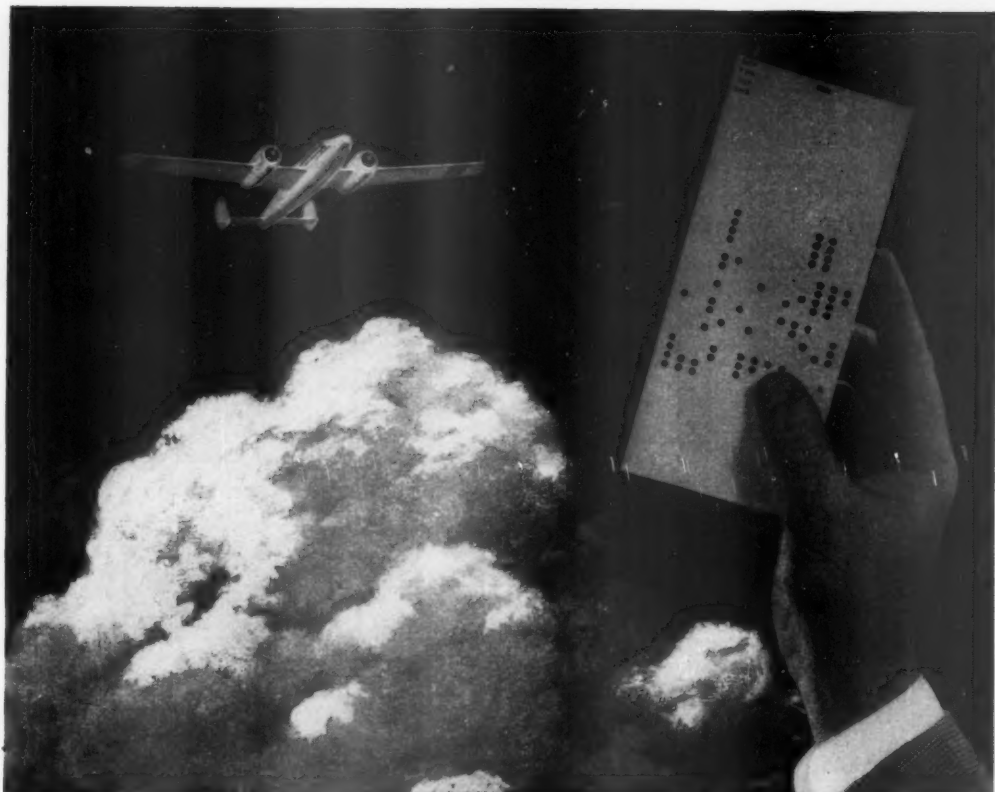
Texas Chamber of Commerce managers have finished a survey of more than 350 companies that have branch stores or plants in the state. The aim was to find how these companies are rated in community affairs. Results tell what 108 local chambers think of the companies in their areas, and in what ways each company is rated above or below average.

Severance pay for clerical and first-line supervisory personnel is standard practice for most big companies, according to a survey by McKinsey & Co., management consultants. But only half the companies checked have standard practices for providing such pay for middle or top management.

A new Anglo-American Journal of Industry Economics will begin publication this fall. It will be devoted to articles such as the availability of raw materials, controls of capital outlays, problems in advertising. Three American professors—Joel Dean of Columbia, R. B. Heflebower of Northwestern, and E. S. Mason of Harvard—will be on the board of editors, along with three British economists. Issued three times a year, the publication will have offices at 49 Broad St., Oxford, England.

The Illinois Dept. of Labor and 13 big companies are starting a two part study of (1) the effect of excessive industrial noise on workers and (2) how you can minimize noise in factories.

A correspondence school has been started by the National Office Management Assn. for senior and junior executives. The course takes six months. Enrollment, at a cost of \$30 to \$50, can be made through Personnel Division, NOMA, 132 W. Chelton Avenue, Philadelphia 44, Pa.



business office efficiency at 10,000 feet

To the busy executive flying his own aircraft, knowledge of his exact location in flight instantly would greatly assist in further cutting transportation time and reducing navigation error. Such navigation assistance is now a reality, through the new Collins Navigation Computer, another outstanding result of Collins advanced Engineering and Research.

With the ease of a dial phone, the Collins Navigation Computer tells the executive his exact position continuously. Required information is fed to this electronic computer on a previously prepared punch card. The card activates the Navigation Computer to give the pilot a continuous fix measured in miles from his destination along his chosen course. Whether the flight plan calls for Tulsa to Chicago, Dallas to New York, or to any waypoint in the U. S. *whether or not navigational aids are available at destination*, the navigation for complete flight can be pre-calculated. During instrument landings too, the Navigation Computer can provide the pilot with

exact readings of distance from aircraft to the touchdown point.

Equipped with the Navigation Computer and appropriate punched card, the executive pilot is confident of knowing his exact position at any point along the entire route . . . and of flying an accurate course to his final destination.

A descriptive booklet on the Collins Navigation Computer is available and will be mailed to you on request. Collins has also developed a new and improved ILS — Omni Integrated Flight System. Descriptive literature will be forwarded on request. 16-mm sound films of the Collins Flight System are also available. Your reservation request on your firm letterhead will receive prompt attention. Please address Dept. B.



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TED BRAUN, management consultant, got the idea, and his San Francisco man . . .



HAROLD O. BELKNAP whipped up¹ enthusiasm among executives of Safeway Stores, Inc. First thing the Safeway management men knew, they were . . .

Businessmen Working in Politics



1 ON THE JOB Warren Jorgenson, Safeway division advertising manager, goes over a newspaper ad layout with Dave Lyon, his production manager. Then . . .



2 AFTER WORK he drops in at Republican county headquarters to report on registration. He's second from right; left is County Chairman A. F. Derre.



3 HOUSE TO HOUSE goes Jorgenson, urging people to register. Here he talks with city fireman John Huber and Mrs. Huber at their front door.



4 COFFEE BREAK in an evening of doorbell-ringing comes when Jorgenson, center, sits down with two of his three precinct committeemen to compare results of their rounds.

Companies are coming around to the idea that executives should be encouraged to get active in politics. This happened in Safeway Stores, Inc.

Presidential election year is giving a new business theory a vigorous workout. The theory: It's good business for executives to get their feet wet in politics. Safeway Stores, Inc. (pictures) has pushed the idea to the point where nearly 3,500 men from the store manager level on up have been exposed to politicking.

T. W. Braun, president of Braun & Co., Los Angeles management consultants, had the get-into-politics idea several years ago. It was picked up by clients including the F. W. Woolworth Co. and the Safeway chain. A California food chain known as Lucky Stores has also adopted it through a trade association for which Braun is a consultant.

• **Texts**—Safeway pushes its executives into politics by giving a formal course in the subject. Braun and his staff have written the texts for the course, which is titled "The Rights and Duties of Citizenship." Phase I of the course starts at the precinct level and follows the chain of political power up through the national committee and the nominating convention. It tells in fine detail what a businessman can do to exert

himself in politics. Phase II—which is meant for men who are already taking part in politics—deals with political action: how organized groups influence political decisions.

• **Easy Entree**—It's not hard for a businessman to get into the political councils at the grassroots, Braun and the Safeway people have found. A man scarcely has time to get out all the words of an offer to help before the political lightning strikes.

Harold O. Belknap, Braun's representative in San Francisco, had this experience. Since he was going to have to sell the program to Safeway executives in his area, he decided he had better try the medicine himself. He is a registered Republican, so he phoned the Republican central committee for San Francisco County and offered to do some work in his precinct. The astounded politico at the other end of the wire took his name and address and said: "O.K., Mr. Belknap, you be chairman of the precinct."

It turned out that until then there hadn't been a chairman for the precinct; in fact, there hadn't even been a committee. Belknap did such a good job

of lining up a committee and ringing doorbells in his territory that he was soon called downtown to be a publicity adviser to the central committee.

Warren Jorgenson, Safeway's division advertising manager in San Francisco, found entree equally easy about a year ago. When he completed his Phase I course, he phoned the Republican county committee to offer his services at the precinct level. They grabbed him right away as a precinct committeeman. He's now chairman of Precinct 73, Assembly District 24.

• **Safeway's View**—When Safeway abandoned the businessman's traditional hands-off policy on politics in 1950, Lingan A. Warren, the company's president, sent a bulletin to upper management levels. He called the political education plan "a key to the behind-the-scenes activities which, to all intents and purposes, actually create public policy."

"Business as a whole," he said, "is beginning to recognize that political events are important operating factors which surely and certainly show up on the profit and loss statements of business . . . I have a patriotic interest in good politics as well as a pocketbook interest, just as you do."

• **The Course**—Here's how the political program works at Safeway.

The Braun representative for each



first choice for the biggest
...the logical choice for you



Why not take a braking tip from the men who operate the rugged off-the-road giants. They'll tell you it takes **stopping power and performance-plus** to provide perfect braking control for nearly 70 tons of solid rock and steel, defying gravity up grade and down under the very toughest of operating conditions. Ask them what brakes they choose for this tremendous task and time after time you'll get the same answer—Bendix-Westinghouse. That's because these mighty brakes, built by the industry's most experienced manufacturer, pay off with the **safest, surest, most dependable braking action** and longest service life in the business. And these are factors that mean **reliable, economical, performance** on any hauling job—from the roughest to the most routine. That's why, no matter what type trucks you operate, you'll be sure to get the most in **safety, dependability and savings** by specifying Bendix-Westinghouse—the world's most tried and trusted air brakes.



BENDIX-WESTINGHOUSE AUTOMOTIVE AIR BRAKE COMPANY
 ELTHAM, OHIO BERNKLEY, CALIF.

region usually arranges a dinner for about 30 of the top-level executives. After dinner he delivers the substance of the material in the course pamphlets, using charts and local maps and diagrams as illustrations. He winds up with a question period.

After that, it's up to those who heard the lecture to assemble groups of about 30 subordinates, down to and including store managers, to give them the same stuff.

Meanwhile, Safeway follows a national policy of encouraging interest in politics. It drops spot announcements into its radio and newspaper advertising to urge people to register and vote, and store managers are under orders to make store space available to local authorities for use as registration places.

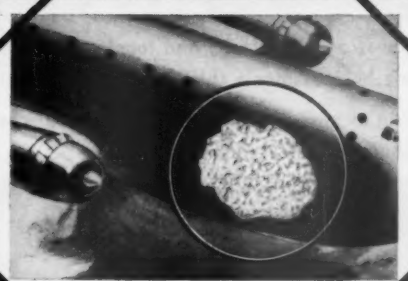
- **What Effect?**—Results can't be measured in cold statistics. Some district and division managers have reported back to the main office in Oakland, Calif., that all employees, even below the rank of store manager, are registered to vote. And when executives come in for their Phase II lectures, they're always bubbling over with enthusiasm over personal experiences that came their way as a result of their Phase I session.

- **Party Slant**—A touchy point could be any partisan slant that crept in. Braun and Safeway take pains to see that their political primer is nonpartisan. They go out of their way to avoid knowing their students' party affiliation, though in reports of personal experiences the word "Republican" inevitably comes out pretty often.

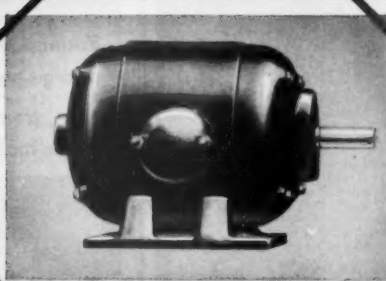
Still, Safeway watches closely to make sure no political view is specifically advocated. The chain's suppliers and customers come in all political hues; besides, pushing any political viewpoint could get Safeway in trouble with labor unions, congressional committees, and other groups.

- **Main Aim**—A. R. Griffith, Safeway executive in charge of the program, feels that, in the long run, it doesn't matter which party an executive decides to work for. "We think we can improve both major parties," he said. "Our real purpose, though, is to improve government officials."

This statement is akin to the company president's bulletin announcing the course. "The business point of view," Warren said in that announcement, "now receives almost no consideration in political circles, and we feel that it should be represented at least equally with other points of view if business as we know it is going to continue to progress. The only way this end can be accomplished is to leaven political circles with a sprinkling of people who do have the business point of view."



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LOCAL BUSINESS

Business by and large is a local affair, and local news takes a large place in every businessman's thinking.

Here, from a sampling of cities around the country, are some of the local events that made news last week.



NEW WORKHORSE will help expand Los Angeles' program of carrying . . .

Mail by Helicopter

LOS ANGELES—Commercial exploitation of the helicopter's possibilities has so far fallen way short of rosy postwar hopes. Los Angeles is one of the few exceptions. This week Los Angeles Airways, Inc., celebrated its fifth anniversary carrying the mail between downtown Los Angeles, the city's airport, and 35 other heliports in the area.

The Post Office Dept. helped the company celebrate the event by dedicating a brand-new heliport on the roof of the Terminal Annex Post Office, on the fringe of downtown Los Angeles (picture). And the company itself celebrated by taking delivery of its second eight-passenger-size S-55 Sikorsky helicopter. Up to now it has been operating mostly with small, aging S-51s.

The 332-mi. helicopter mail route serves 43 cities and has given Los Angeles' far-flung suburbs mail service equivalent to downtown. Businessmen in the area swear by the service.

Take the case of Anaheim, 28 road mi. from Los Angeles. Mail between Anaheim and other points in the county used to take three to five days. The helicopter service has shaved it to a matter of hours. On long-distance mail, General Electric reports a full day saved

on mail between its Anaheim plant and its home office in Schenectady.

Passenger service is still a couple of years in the future. The company got a government O.K. to start carrying passengers in June, 1951. Acquisition of the big S-55s was the first step; the third one will be delivered in January. Pilots will give the three ships a thorough testing on the mail routes before passenger service is started. First passenger routes will probably be from such outlying cities as Anaheim and Riverside to the airport; downtown service will have to wait until twin-engine 'copters are available.

Slum Clearance

RICHMOND—For years, city officials and businessmen have been worrying about the blighted area in the center of the city. Slums surrounding the central business district were increasing; residents were moving farther out into the suburbs; choked transportation arteries were making it more and more difficult for suburbanites to get into the shopping center.

Finally the Central Richmond Assn., an organization of businessmen, decided something had to be done. Last week it came up with a suggested first step: complete rehabilitation of an 11-acre

area in once-swank Gamble's Hill, just four blocks from the heart of the shopping district. City officials hailed the plan enthusiastically, and immediately started the wheels turning.

The plan is for the city to buy the tract and resell it to a private developer for a 640-apartment project, complete with parks, playgrounds, and parking areas.

The property is now assessed at \$231,000, on which the city gets \$5,082 a year in taxes. The association figures the tax take on the new development would be \$132,000 a year. And under the Housing Act of 1949, the federal government would stand two-thirds of the loss if the city sells the land for less than it pays for it.

The City Council has ordered the city attorney to set up a timetable for the project within 90 days.

End of a Feud

BIRMINGHAM—The Ingalls family feud hit the headlines here again last week, after a lapse of more than a year. This time the news was a totally unexpected reconciliation between Robert I. Ingalls, Jr., and his mother.

Ingalls Iron Works Co. with its many subsidiaries, including Ingalls Shipbuilding Co., make up one of the largest industrial combines in this part of the country. Up to 10 years ago, all the stock was owned by Robert I. Ingalls, Sr. In 1943 he split up the stock, giving some to his wife, some to his son, keeping some, and putting the rest in a series of trust funds for his son's children. If any of the three family members died or resigned, the company had the option of buying up the shares.

Everything was fine until 1947. Then Robert, Jr., and his wife were divorced. Relations between the two men became strained. In 1948, Robert, Jr., married another woman, and his father blew a gasket. Mrs. Ingalls sided with her husband. In May, 1949, Robert, Jr., who had become president of the parent company during World War II, was fired.

In the next two years, some 19 lawsuits were filed by the two sides in the controversy. In one of them, Robert, Sr., tried to get his son's stock back under the option agreement, but the courts held that Robert, Jr., had not "resigned," and that the option, therefore, did not apply.

In June, 1951, Robert, Sr., died. Birmingham expected that this would restore harmony between mother and son. But when the board met, Robert, Jr., was ignored. Mrs. Ingalls became

chairman, one of the company's other officers was elected president.

Early this year, Jerome G. Taylor, Knoxville (Tenn.) attorney and son of Mrs. Ingalls' sister, stepped in to try to restore harmony. Apparently he succeeded. Last week the board, with Mrs. Ingalls voting in favor, elected Robert, Jr., chairman. His mother was elected to the new, largely honorary office of vice-chairman.

Another Station Plan

CHICAGO—Chicago's many, widely scattered railway terminals have been a headache for the city ever since anyone can remember (BW—May 20 '50, p.22). Many plans have been suggested; none have gone through. Last week the Chicago Plan Commission came up with yet another.

This one envisions virtual consolidation of the three big terminals at the south end of the Loop. First step would be to move the present Dearborn station four blocks west, to a site between the Grand Central and LaSalle St. stations. Eventually, LaSalle St. station would be moved two blocks south, and the three would then lie parallel in consecutive blocks.

Total cost would be around \$200-million, including public improvements such as street widenings and street openings. Part of the expense would be borne by the city, part by the railroads.

The railroads are expected to oppose the plan, as they have opposed others in the past.

Taxable TV

BOSTON—Residents of Stow, a suburb about 20 mi. out, are mad as hornets about a new town tax on television sets. But there doesn't seem to be much they can do about it. And it's likely that the idea of taxing TV receivers will spread, at least to other parts of Massachusetts, possibly to other states as well.

State law exempts "necessary household furniture" from local personal property taxes. But Stow assessors decided TV sets are not "necessary," and have levied \$100 assessments on each of them. The town's tax rate is \$45 per \$1,000, so each TV set costs its owner \$4.50 a year. If the real estate tax goes up, so does the TV levy.

Henry F. Long, Massachusetts tax commissioner, says he agrees that TV sets aren't "necessary." Chances are good that other municipalities in the state, hard-pressed for funds, will take advantage of that ruling.



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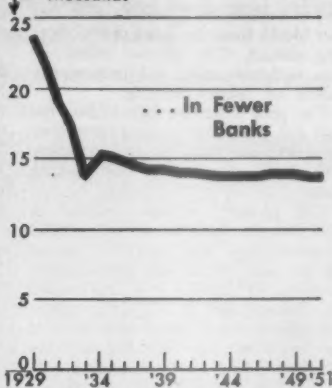
This
Looks Like
Concentration ...



Billions of Dollars



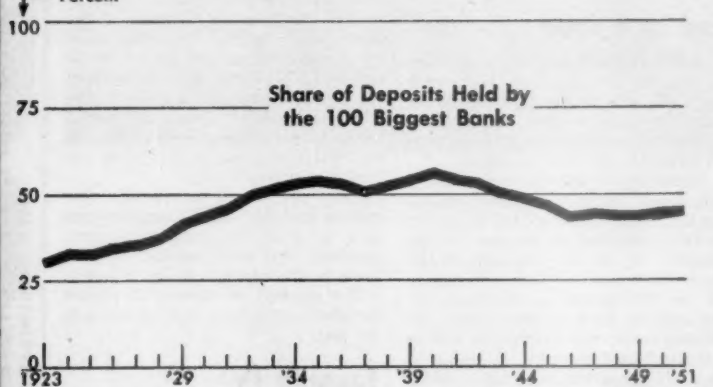
Thousands



... But
This
Doesn't



Percent



Data: The American Banker; Federal Reserve Board.

REP. CELLER'S QUESTION:

Is Banking Too Concentrated?

There are two ways to look at the charts above.

Rep. Emanuel Celler (D-N.Y.), head of the House Judiciary Committee, feels that the decline in the number of banks and the rise in deposits shows an alarming trend toward concentration of banking. Bankers, on the other hand, insist that Celler's figures prove nothing. They point to the leveling off in the share of total deposits held by the nation's 100 biggest banks—as an indication that all the concern over concentration is exaggerated.

Last week, Celler's committee staff sent a report on banking concentra-

tion to Judiciary's antitrust subcommittee. The report's conclusion: There is enough evidence to call for an inquiry into the whole U.S. banking structure and a complete overhaul of federal banking laws. It goes so far as to propose a law which would make nearly all bank mergers, subject to an O.K. by federal agencies.

• **Second Encounters** — This is not Celler's first battle on mergers. In 1950 he sponsored a bill that tightened up the application of the antitrust laws to corporate mergers. It extended the Clayton Act to cover any corporate merger that might cut down competition—

whether it involves direct purchase of assets or purchase of stock. Before that the law applied only to mergers accomplished by stock purchase.

The Celler amendment on cash mergers, however, never did apply to banks. The Federal Reserve Board has no effective power over bank mergers, through the Clayton Act, though it does where stock acquisitions of bank by holding companies are concerned. FRB has suggested to Congress that it ought to get more power. So far Congress has turned a deaf ear.

• **New Rule**—Celler's bill would, in effect, change all that. It would amend

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the Federal Deposit Insurance Act to give federal agencies power to pass on mergers in just about every U. S. bank.

The way Celler proposes to do this gives some idea of how complex our banking system is.

- **National banks**—Banks which are organized under a federal charter and are required to be members of the Federal Reserve System—would have to get approval for any merger from the Comptroller of the Currency.

- **Federal Reserve member banks** that are organized under state charters—state banks don't have to join the Federal Reserve System even though many do—would have to get approval from the Federal Reserve Board.

- **State banks** which are not Federal Reserve members but are insured by Federal Deposit Insurance Corp. would have to ask FDIC.

- Any state bank which is not insured would have to get FRB's permission to acquire any other uninsured bank.

- **Fighting Words**—This is how Celler and his staff sum up their case: "The continuing decline in the nation's banking population, coupled with the unrelenting merger movement in the field of finance, gives rise to serious concern lest competition be severely restricted."

This kind of talk makes bankers bristle. They see it as just another attempt to force more federal regulation on banking. This is how they look at it:

- After hard experience, the U. S. has worked out a dual system by which national and state banks exist side by side. This system will be destroyed if the federal government is allowed to extend its power over state banks.

- To the extent that there is concentration, it is largely due to factors that can't be cured by competition.

- Most concentration that has taken place has been good for the economy. Strong banks protect the public by absorbing weaker ones.

- Too much competition is as bad as too little. A bank that gets too aggressive may make risky loans and investments. If so, depositors suffer.

- If you take, for instance, the share of total commercial bank deposits held over the years by the 100 biggest banks it would be difficult to prove that the trend is still toward concentration (chart, page 126). Furthermore, the biggest banks are no longer clustered in New York City.

- **Fewer Banks**—Against such arguments the Celler report cites the undeniable fact that the number of commercial banks dropped from a peak of about 29,000 in 1920 to around 14,000 at the end of last year. However, the bankers point out that practically all of the decline in bank population took place in the 1920s and early 1930s

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The Dayton Biltmore Chooses Frigidaire Air Conditioning For Ballrooms

Mr. Fletcher Brumit, Manager of the Dayton Biltmore, says: "The Hilton Hotels Corporation takes pride in the fact that its hotels represent the finest in the cities in which they are located. That's why we at the Dayton Biltmore choose the finest in refrigeration and air conditioning—Frigidaire."



Like all Hilton Hotels, the handsome Dayton Biltmore is known for its comfort and hospitality. As the latest service to its guests, this popular hotel recently installed the most modern Frigidaire air conditioning system in their new grand and junior ballrooms.

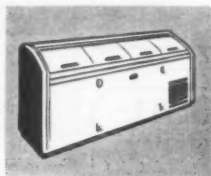
Four Frigidaire 20 hp. Compressors, (instead of one 80 hp. compressor) make this system especially flexible, cooling either one ballroom or both simultaneously. A comfortable atmosphere can be maintained economically whether there are 100 or 1000 occupants in the ballroom. Another unusual feature is that 50% fresh outside air is continuously circulated into the system—keeping the rooms free of smoke and food odors.



From the kitchens to the suites Frigidaire helps the Dayton Biltmore serve its guests



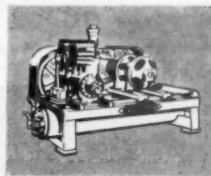
Frigidaire Household Refrigerators are provided in several of the hotel's suites. Some suites also have Frigidaire self-contained Air Conditioners.



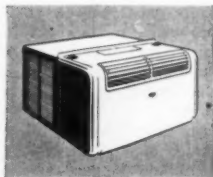
Frigidaire Dry Beverage Coolers keep soft drinks refreshingly cool in the Kittyhawk Lounge—which also has Frigidaire bar refrigeration.



Concealed Frigidaire Self-Contained Air Conditioning units maintain comfortable temperatures the year 'round in all the hotel's dining areas.



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Frigidaire Room Air Conditioners provide cool comfort for guests in rooms and suites. The additional revenue soon pays for the conditioners, then becomes profit.

So whatever your hotel's refrigeration or air conditioning needs—call your Frigidaire Dealer. Look for his name in the Yellow Pages of your phone book. Or write the Frigidaire Division

of General Motors, Dayton 1, Ohio. In Canada, Toronto 13, Ontario. Be sure to ask, too, for Frigidaire's free Refrigeration Security Analysis of your needs and your refrigeration costs.

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Take a man for instance, who files a joint return on \$45,000 of taxable income. He can realize the same return *after taxes* from a tax-free municipal yielding 2%, as he can from a taxable stock paying 8%.

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But lots of others don't understand this tax-saving opportunity.

That's why we've just published a new booklet called "MUNICIPAL BONDS".

It begins with a chart comparing net yields from taxable and tax-free securities at various income levels . . . shows just how important municipal bonds may be to you.

Then it describes the different kinds of bonds you can buy . . . explains how they're priced . . . tells how to compare them as to quality.

It covers why and how they're issued, why they're such a safe investment, why we feel we can help you select those best suited to *your* situation.

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WEST VIRGINIA

WORTH EXAMINING

yes, the "clues" section of **BUSINESS WEEK** is worth a careful examination by you every week. It is the classified advertising section and is full of opportunities offered and wanted—personnel—business—financial. Check it this week and every week.

(chart, page 126) through bank failures, not mergers.

The report admits that the depression took 9,000 banks between 1930 and 1933. But it shows that since 1934 the rate of bank failures has been lower than for other businesses. Concludes the report: "The nation's constantly diminishing bank populace must suffer from maladies other than" the normal risks of doing business.

• **Disease Symptoms**—One of these "maladies," says the report, is the urge to merge. From 1945 through 1951, there were 581 mergers among commercial banks, big and small. Why? The report gives two main reasons: (1) "Peculiar economic circumstances of one kind or another" and (2) "The natural desire of some banks to expand."

• **The Key**—Celler and his staff recognize that the main cause of today's wave of mergers is low earnings for banks compared with other industries. This is reflected in the stock market in the fact that most bank stocks sell below book value. With that, the staff report drops the subject.

Yet most bankers believe that low earnings are the key to the whole question of bank mergers, the disease of which mergers are only a symptom. More competition, they say, would hurt rather than help.

Low money rates have existed since the early 1930s, partly because of deliberate Treasury policy. Bankers argue that these low rates, along with high taxes, have made many bank managements feel that it wasn't worth while to stay in the banking business. As long as its stock is selling below book value, there is a constant temptation for both stockholders and management of a bank to take a capital gain through the merger process.

• **Loan Slump**—Bankers point out that ever since money rates started moving up in March, 1951, there has been an improvement in bank earnings, in spite of higher income-taxes. Last week, New York City bank stocks moved to the highest level since 1937 after news of higher dividends and predictions that banks are going to earn more in 1952 than was expected.

The Celler document suggests that low earnings are related in some way to a decline in loans: Banks, it says, haven't been lending enough money. They loan a much lower percentage of their assets than they used to.

This is cited to help prove that there may be a shortage of bank credit, for which empire-building bankers may be to blame. Yet, not long ago, the government was so worried by the expansion of bank credit that it asked banks and other lenders to start observing voluntary credit restraint (BW—Mar. 17 '51, p. 19).



"CARRYING ON"
IN ALL DIRECTIONS

Regardless of what you want to convey or where you want it to go, Raybestos-Manhattan has a conveyor belt engineered to carry the load . . . Belts for mining, quarrying or construction work that are unequalled for natural troughing, flexibility, tear resistance and ability to hold fasteners. There are R/M conveyor belts with extra-cushion features for heavy duty shock loading . . . Others for hot materials . . . Still others for high tensions, long lifts. Then too there are R/M belts for light duty — packages, parts, cases or cans • Conveyor belts may not be your problem today, but whenever you think of transmission, conveyor or V-belts — or *any* industrial rubber product — remember "Raybestos-Manhattan makes it", and call your R/M representative.

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Flat Belts



V-Belts



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Hose



Roll Covering

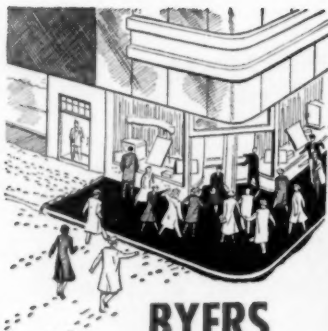


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BYERS SNOW MELTING TURNS YOUR SIDEWALKS INTO SALESMEN

When snow starts falling this winter, plan to be among the growing number of snow melting users who have discovered that dry, hazard-free sidewalks pay-off handsomely in customer good will. You'll find that this thoughtful gesture on the *outside* is just as important as polite salesmen and quality merchandise on the *inside*! And, it eliminates a recurring maintenance chore!

Byers Wrought Iron pipe has long been the No. 1 choice for snow melting installations. Coils of this time-tried material, embedded in sidewalk or driveway, carry hot water that makes snow disappear as it falls. Genuine Wrought Iron is easy to weld, resists corrosion, and withstands damage during installation. Because it keeps serving when vulnerable materials fail, it's the dependable way to add sidewalks to your sales force.

This new bulletin covers the entire field of snow-melting... design, installation, operation... and explains why dependability demands the use of Byers Wrought Iron pipe. We'll be glad to send you a copy on request. Write A. M. Byers Co., Clark Bldg., Pittsburgh, Pa.



BYERS

WROUGHT IRON



MEMBERS of the San Francisco Stock Exchange get the traditional welcome as the

Travelingest Exchange



PRESIDENT of the exchange, Ronald Kachler (left), tries some one-finger poi, a native dish. Poi is rated at one, two, or three fingers, depending on consistency.



Lurline arrives in Honolulu. Group included wives, was on its longest jaunt.

ge Goes on Hawaii Junket

The traveling stock exchange in America, if not in the world, has returned from its biggest trip of all. In the Hawaiian Islands last month, the San Francisco Stock Exchange visited its 80th company plant since 1946. Eventually, it hopes to visit all 350 companies whose securities it lists.

The San Franciscans got the travel bug when they paid their first visit to the Bakersfield (Calif.) oil fields. Most of the trips since then have been short bus jaunts in the San Francisco bay area, but others have also gone far afield. Exchange members have ranged up and down the West Coast by air; earlier in the year they flew to Edmonton and Calgary in Canada.

• **Aloha for 66**—The Hawaii trip attracted a party of 66, including 20 members of the exchange, two exchange officials, six bankers, three business guests, five San Francisco financial reporters, and members of their families. Fifty-five took the 43-day cruise on the

liner Lurline; the rest went later by plane in time to greet the ship.

Purpose of the jaunt was to teach the visitors the facts of business life in the islands—85% of the party had never been in Hawaii before. An eight-day schedule included lectures on the island economy and on Pacific defenses, tours of plantations and company plants, a fast look at the tourist trade.

• **Benefits**—Both the islanders and the visitors thought the trip was worthwhile. The San Francisco exchange is the only U.S. mainland market that lists Hawaiian stocks. Thirty Hawaiian companies thought the visit was important enough to put up \$15,000 toward expenses, even though the trippers probably averaged more than \$1,000 apiece.

For tax purposes, the men can deduct the cost for themselves as business expenses—but not for their wives and children, who were included in an exchange trip for the first time.



IDEA FOR DESIGNERS... Who want the LUSTER of SCARCE METALS...

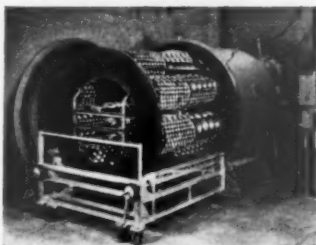
Use available metals or plastics... then *VACUUM COAT* a thrifty .000003" gleaming layer of aluminum on top. You will find vacuum coating a fast, economical way to give metals and plastics a bright metallic finish. One pound of aluminum actually coats 25,000 square feet of surface.



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Extremely fast. Simple to operate. National Research vacuum coating equipment requires no multiple buffing or plating operations. Millions of glittering novelties, car ornaments, and appliance parts owe their bright metallic luster to National Research vacuum coating. Write today for full facts.

Use VACUUM COATING



A National Research Vacuum Coating Unit

National Research Corporation Equipment Division

70 MEMORIAL DRIVE, CAMBRIDGE, MASSACHUSETTS

This announcement is neither an offer to sell nor a solicitation of an offer to buy any of these Shares. The offer is made only by the Prospectus.

3,180,188 Shares
Socony-Vacuum Oil Company,
Incorporated
Capital Stock
 (\$15 Par Value)

Rights, evidenced by subscription warrants, to subscribe for these shares have been issued by the Company to the holders of its Capital Stock, which rights will expire at 3:30 P.M. Eastern Standard Time on October 14, 1952, as more fully set forth in the Prospectus.

Subscription Price \$31 a Share

The several underwriters may offer shares of Capital Stock at prices not less than the Subscription Price set forth above (less, in the case of sales to dealers, the concession allowed to dealers) and not more than either the last sale or current offering price on the New York Stock Exchange, whichever is greater, plus an amount equal to the applicable New York Stock Exchange commission.

Copies of the Prospectus may be obtained from only such of the undersigned as may legally offer these Shares in compliance with the securities laws of the respective States.

MORGAN STANLEY & CO.

DILLON, READ & CO. INC.

THE FIRST BOSTON CORPORATION

BLYTH & CO., INC.

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September 26, 1952.

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Send for our brochure, "Letterhead Logic" containing the check list used by experts to test prestige, personality, and sales appeal of letterhead design. Genuine engraved letterheads of 100% selling efficiency are designed and produced by us at prices much lower than you ever expected. For your FREE copy of "Letterhead Logic," simply write on your letterhead the quantity usually purchased and mail to us.

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**YOUNGSTOWN STEEL CAR
CORPORATION**
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Large scale producers of . . . big weldments on a production basis—die pressed channels for bus, truck and trailer chassis—railway cars, repairs and parts—miscellaneous heavy presswork.

SEC Speed-Up

Rules on new securities are streamlined to get more data on issues to the potential buyer.

As any broker can tell you, the Securities & Exchange Commission's "trust in securities" rules have fallen a good way short of their goals. Procedures for publicizing information about new issues have been so cumbersome that buyers have been left in the dark.

Now after years of soul searching, SEC has streamlined its procedures. This week it issued a new set of rules designed to give customers the important facts they need to make an intelligent investment decision—in readable form and in plenty of time. The rules apply to all registration statements to be filed on or after Oct. 27, 1952.

• **Prospectus**—The core of the changes lies in the prospectus, and in the requirements for advertising and distributing it.

Under the old rules, an underwriter had to wait 20 days from the time the issuer filed a satisfactory registration statement until he could make a sale of the new securities. In the interim, all he could do was send out one copy of the so called "red herring" prospectus to each dealer in the selling group. The red herring is a preliminary prospectus from which final terms and prices must be omitted, and which carries a warning that it isn't an offer to sell.

In the 20-day period, the dealers could do no advertising, nor could they furnish information through the mails. Ads were restricted even after the waiting period was over; all they could contain was the name of the issuer of the security, the type and price of the issue, and where the prospectus can be obtained.

The rules also required that a prospectus must "precede or accompany" the first contact in writing between dealer and customer. But there was nothing to prevent the dealer from telephoning a customer, making a sale then and there, and sending the prospectus along with the confirmation of sale. That way, the law was obeyed, but the customer was still buying in ignorance. There was no inducement to get the prospectus out early.

• **The Bait**—In the new rules that's changed; SEC has included a powerful inducement to dealers to get the information out fast. The gimmick is a speed-up in the 20-day waiting period. This in itself isn't new; SEC has shortened the period in the past if it felt that circumstances warranted. What's new is that from now on the

the eyes of the most important men in the business world—the management-men—scan the "clues" section of **BUSINESS WEEK** every week. Want a position? Or offer representation? Or want a business opportunity? Tell management-men through "clues", **BUSINESS WEEK'S** classified advertising section.



This month marks the 200th anniversary of the birth of Nicholas Appert.

You'd have given him a medal, too!

You yourself may well be grateful to Nicholas Appert, for his simple theory is perhaps one reason food products can be mass-produced today.

In 1809, Napoleon Bonaparte awarded Appert a 12,000 franc prize for the results of his experiments in food preservation. Appert found that if certain foods were sealed in airtight containers and subjected to high degrees of heat, the foods would stay fresh for long periods of time.

Here at Canco, we've gone far beyond Appert's simple discovery to

create *special* containers for *all kinds* of products. Today, we have better packages for not only more than 500 different food products, but hundreds of non-food products as well.

Canco makes special cans for products which must be kept in a vacuum, like coffee and peanuts.

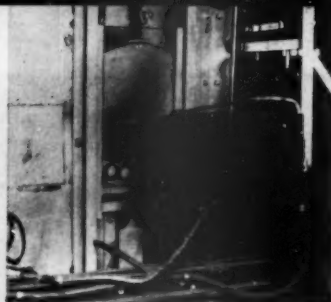
We have cans for frozen fruits and ball bearings, paint and artichokes, lighter fluid and blood plasma—practical, problem-solving containers for an endless line of products which need *special* attention if they are to reach the market safely.

What about *your* product? Before you make up your mind that it doesn't *belong* in a can, why not investigate. Chances are that our packaging experts already *have* the perfect container for you. *And if they haven't, they can get it.*

Containers—to help people live better.



The
TIMKEN
Company
**Improves TUBE
MILL Operation**



"Utiliscope" Camera looks directly into furnace at charging end.

With the
DIAMOND "UTILISCOPE"
(WIRED TELEVISION)

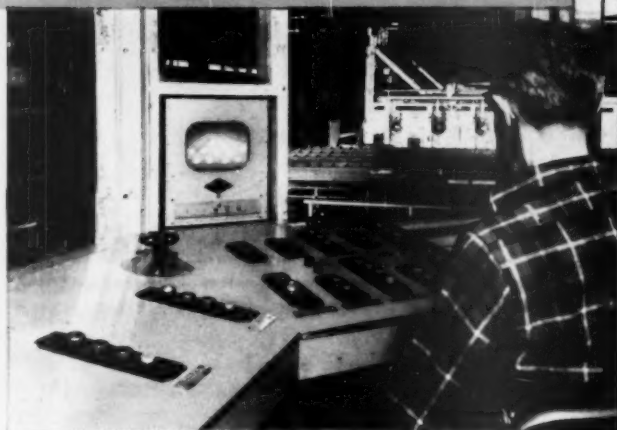


Image of furnace interior on "Utiliscope" viewing screen, right in front of dispatcher 80 feet away.

In a seamless tube mill of The Timken Roller Bearing Company, both the mill and the heating furnace are controlled by a single dispatcher. Tubes are automatically fed into the furnace sidewise . . . travel through on a conveyor. To watch both the mill and the furnace, the dispatcher must be about 80 feet from the furnace charging end.

Formerly a second man was required at the charging end to avoid tube "pile ups" in the furnace. Now a Diamond "Utiliscope" (Wired Television) Camera looks directly into the furnace . . . the image is brought to a viewing screen right in front of the dispatcher. It's easy for him to maintain even furnace feed and avoid "pile ups."

This is one of many examples of improved operation with a saving in cost that has been made by using the "Utiliscope". For further information, write for Bulletin 1025-T.

OTHER USES include studying destructive tests of engines, checking remote gauge readings, viewing nuclear research, etc.

The "Utiliscope" Reg. U. S. Pat. Office.

DIAMOND POWER SPECIALTY CORP.

FIRST IN INDUSTRIAL TELEVISION

LANCASTER, OHIO • OFFICES IN 39 PRINCIPAL CITIES

Diamond Specialty Limited—Windsor, Ontario

Since 1903, Diamond has Manufactured
Quality Equipment For Industry



WRITE FOR
BULLETIN 1025T

commission will advance the date only if the underwriters distribute a short, fact-filled identifying statement to a wide number of potential investors.

This speed-up could mean plenty to underwriters. The rules require that the registration statement must include the price of the securities, underwriting commissions, and other data. In the nearly three weeks between filing and approval, market changes must make the deal, as outlined, unprofitable.

• **Free to Write**—After Oct. 27, underwriters may send as many red herrings as they like to dealers in the group during the waiting period, along with copies of the new identifying statements. The dealers, in turn, will be permitted to advertise or to mail the information to customers—in effect screening potential buyers.

Sales, of course, still may not be made before the effective date. But SEC will hasten that day, if the customers have been properly plied with information.

A satisfactory identifying statement, according to SEC will include:

- Notice that the statement isn't an offer to sell. (That's a must.)
- The name and type of business of the issuer.
- Price, yield, redemption, convertibility, and warrant provisions.
- The type of exchange on which the security will be listed.
- An opinion of the issue's legality as an investment for savings banks, insurance companies, fiduciaries.
- Tax exemption, if any.



ABA's New Chief

The American Bankers Assn. this week at Atlantic City, N. J., elected W. Harold Brenton as president. Brenton, 53, has been president of the State Bank of Des Moines since 1941. He is also president of 10 other small Iowa banks.

Office noise ...



... allowed to rebound ...



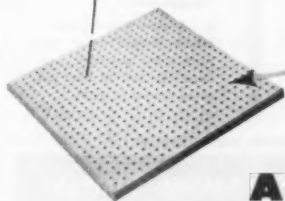
... from ceilings and walls ...


... causes irritation ...

... and inefficiency ...

... among employees.

Reduce "noise-tension"
with a ceiling of ...



An Armstrong Cushiontone® ceiling can end distracting office noise. See your Armstrong Acoustical Contractor today for a free estimate on installing efficient, low-cost Cushiontone. For the free booklet, "How to Select an Acoustical Material," write Armstrong Cork Company, 5210 Walnut Street, Lancaster, Pa. 

ARMSTRONG'S CUSHIONTONE

Faster, Easier Filing in

Less floor space!

...with

Rock-a-File



Modern filing, made possible by Rock-a-File's revolutionary side-opening compartments, is faster and more efficient because each compartment "rocks" open to make its entire contents instantly accessible. More than that, *Rock-a-File actually requires less floor space than old-fashioned drawer-type files!*

Rock-a-File compartments project less than eight inches when open, "rock" open and shut effortlessly, and permit two or more persons to use the same file cabinet simultaneously. Alcoves, corridors, small corners and many other hitherto impractical locations become ideal filing space with Rock-a-File.

And Rock-a-File is *safe*, too... gravity center remains always within the cabinet; no danger of toppling, even with lower compartments empty.

See your dealer or write for a descriptive folder and name of nearest dealer today... learn how Rock-a-File can save filing time, costs and space in your business.



A typical vault installation showing 4-compartment and 2-compartment Rock-a-Files in tiers.



A 2-compartment Rock-a-File in private office use. Note close position... no need for user to rise; just swing around in chair.

For information, address Dept. B



ROCKWELL-BARNES COMPANY

35 East Wacker Drive • Chicago 1, Ill.

FINANCE BRIEFS

Some New York bankers expect the money market to go through its tightest squeeze of the year soon after Oct. 8, when \$2.5-billion of tax anticipation notes will be offered by the Treasury. Sale of these notes, the bankers think, could well coincide with a delayed-action peak in the demand for business loans.

Phelps Dodge Corp., nation's second largest copper producer, is now one of Amerada Petroleum Corp.'s biggest stockholders. It has just bought 100,000 of Amerada's shares at a cost of some \$19 million, for "investment purposes." Block is said to have been bought from British investors.

Two big oil financing deals in the works right now will benefit stockholders directly: (1) Socony-Vacuum Oil Co., Inc., is giving holders of its shares first crack at an offering of 3,180,188 shares of new common at a price of \$31 (\$3 under its market value early this week). (2) Standard Oil Co. (Ind.) is offering members of its stockholder family exclusive first-rights to subscribe at par to \$136.6-million new 30-year 3½% debentures, convertible into stock at what Wall Street now considers favorable terms.

The World Bank—International Bank for Reconstruction & Development—will offer investors \$60-million new year bonds next week. What interest coupon they'll carry is still unknown. The \$350-million long-term 3's, 3½'s and 4's the bank already has outstanding are now selling in the market at prices offering buyers yields of from 3.31% to 3.50%.

Trans World Airlines president Ralph S. Damon says TWA made "good" showing in the third quarter, should have a "satisfactory" last quarter, too. First-half earnings ran some 47% under their 1951 level.

Only 25¢ instead of the customary 50¢ will be what National Distillers Products Corp. pays as its last-quarter dividend on its common shares. First half earnings totaled only 67¢ per common share vs. \$1.36 in 1951.

Recent private placements: \$12.5-million of 3½% 20-year notes by Eagle-Picher Co., \$12.5-million 20-year 3.95% notes by Carrier Corp., \$25-million 3½% mortgage bonds by El Paso Natural Gas Co., \$23-million 3½% 30-year mortgage bonds by Youngstown Sheet & Tube Co.



The man who moved upstairs

THIS MAN used to work underground in Kennecott Copper Corporation's mine at Ray, Arizona. We're bringing him and the whole mine "upstairs."

The underground mine is being converted to an open pit which will cover a greater area. This will substantially increase production since

huge electric shovels can scoop a nine-ton bite right from the surface.

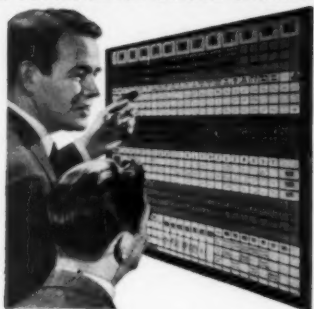
Turning this mine "inside out," will help Kennecott produce more copper to meet the nation's needs.

Good mining and good mines make Kennecott the largest copper producer in the world.

Kennecott
COPPER CORPORATION

Fabricating Subsidiaries:
CHASE BRASS AND COPPER CO.
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You Get Things Done With Boardmaster Visual Control



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makes fibres
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THE MARKETS



Wall Street Doesn't Know...

. . . how the election is going to come out—or what the effects on the stock market will be. And so traders aren't expecting much of the traditional pre-election rally.

In presidential election years, stocks usually stage a pretty impressive rally sometime between Labor Day and the first of November (BW—Feb. 9 '52, p126). Wall Streeters can prove that with plenty of statistics. But this year, most traders don't expect any fireworks. They'll be satisfied if the market edges along sideways on small volume, not losing much, not gaining much, until election day.

So far, Standard & Poor's 90-stock index has turned in a better showing than it made in the same period of 1948. If you like jumping to conclusions, you can take that as the promise of a real rally in October. But you have to remember that the 1948 pre-election boom was based on two things:

- The market's happy assumption that Dewey was a shoo-in;

- A rising tide of corporate profits and liberal dividend statements (BW—Oct. 23 '48, p106).

- No Spree—This year, the bulls have no such crutches to lean on. Traders may be hopeful about how the election will come out, but in the stock market

they are treating it as an even money bet.

Moreover, corporate profits (except for the railroads) are nothing to start Wall Street cheering. And there have been a number of dividend cuts and omissions lately. In August and September, there were more of these than there were increases among traded stocks. That's happened in four months out of the past six. Before that, dividend boosts had outnumbered dividend cuts in every month from November, 1949, through last March.

- No Hangover—But if traders aren't counting on a joyful boom between now and November, at least they hope to avoid the kind of collapse that hit the market after election day, 1948. The very fact that they are treating the election as an even money proposition means that they won't be taken by surprise as they were on Wednesday morning four years ago.

- Who Knows?—In any case, Wall Street isn't at all sure just how it should weigh the election results when it finally gets them. A lot of traders who



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with HYATTS**

**Fewer Hot Box "set-outs"
to delay freight movement**

The elimination of hot boxes is a management problem—railroad officials and operating personnel all keep an eye on operating costs and they recognize that a great revenue eater is the expense resulting from hot boxes.

It is hard to pin down what the average hot box costs per "set-out;" but some say \$100—others \$150 and still others say \$200.

If freight cars are equipped with Hyatt Roller

Bearing Journal Boxes—a great step will have been taken to wipe out a segment of unnecessary operating expense.

What are your needs? It is our suggestion that no railroad purchase of new freight cars be made until the outstanding advantages of Hyatt Roller Bearing Journal Boxes are fully explored. We will gladly serve you. Hyatt Bearings Division, General Motors Corporation, Harrison, N. J.

HYATT OFFERS EXTRA ADVANTAGES

FREE LATERAL, a unique Hyatt design advantage, allows freedom of axle movement through the bearing, thus cushioning shocks, minimizing wear on wheels and truck parts, and insuring against damage to lading.

NO PRESS FITS TO BREAK when removing boxes for inspection.

REDUCED INVENTORY is possible because spare axles and wheels need to be fitted with only inner races and spacer sleeves.

STRAIGHT RADIAL ROLLERS of generous size provide for maximum load-carrying capacity and longer usable life.

SIMPLICITY OF DESIGN permits examination of all box and bearing parts with utmost freedom.



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The Solution is Clear!...

Simply move closer to this vast Western Market. Avoid prohibitive freight differentials by establishing a West Coast plant in Santa Clara County, California. This decentralized area at the southern tip of San Francisco Bay permits you to operate from both the shipping and population centers of a rapidly expanding \$32,000,000,000 Western market. Freight savings alone pay a large share of your new plant cost. More savings result from the all-year mild climate which provides pleasant living and peak production efficiency. Find out more about this desirable location. Solve your freight problem with a move to the West...in Santa Clara County, California.



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and ask for
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of freight facts
along with
this informative
brochure.

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**SANTA CLARA
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firmly believe that a Republican victory would be good for the country wonder if it wouldn't be temporarily bad for stocks. They reason that the present level of stock prices is based on inflation. If a new administration lets some of the air out of the country's money supply, it may at the same time take some of the blue sky out of the stock market.

Offset against that the fact the Republicans are committed to tax cuts and that business generally would feel a lot more comfortable in a new political climate.

This uncertainty is likely to be a cushion under the market no matter how the election goes. By the same token it is likely to put a damper on any rally between now and November.

Stocks Some Experts Like

What stocks have the professional money managers preferred for holding lately?

The answer lies in the tabulation below. Issued by Wall Street's Aigeltinger & Co., it lists the 50 most popular 1952 midyear holdings of the investment trust trade. These shares had a market value then of over \$1.3-billion and accounted for 25% of assets of over

155 open and closed-end funds.

Oil and natural gas stocks were more in favor than ever before. Alone they accounted for 42.6% of the market value of the favorite 50, compared with only 40.5% at the 1951 yearend. A fading second choice was the chemical group (9.7% vs. 12.1% six months earlier). In third place were the mining and metals shares (7.8%).

Rank By Market Value

Dec. 31, 1950	Dec. 31, 1951	June 30, 1952	Stock	Market Value (Millions)	Trusts Owning Shares	Shares Held (Thousands)	% of Issue Held
3	1	1	Amerada Petroleum.....	\$100.7	27	468	14.84%
7	2	2	Standard Oil (N. J.).....	53.4	70	659	1.09
2	4	3	Continental Oil.....	48.3	65	717	7.36
4	3	4	Gulf Oil.....	41.4	75	742	3.27
1	5	5	International Paper.....	39.2	62	828	9.30
8	7	6	B. F. Goodrich.....	38.8	53	546	13.19
5	6	7	Texas Co.....	37.2	56	630	2.29
9	10	8	Standard Oil (Cal.).....	33.5	50	565	1.97
10	9	9	General Electric.....	30.8	73	489	1.70
6	8	10	Kennecott Copper.....	29.0	70	373	3.45
13	16	11	Phillips Petroleum.....	28.3	65	456	3.16
15	12	12	Union Carbide & Carbon.....	28.1	63	417	1.45
23	13	13	Dow Chemical.....	26.3	51	220	3.16
25	33	14	Southern Pacific.....	25.9	46	312	7.10
20	31	15	General Motors.....	25.6	57	438	0.50
12	18	16	Standard Oil (Ind.).....	25.1	48	295	1.92
11	15	17	E. I. du Pont de Nemours.....	24.8	55	286	0.63
22	20	18	United Gas.....	24.7	60	906	7.74
19	11	19	Monsanto Chemical.....	24.4	52	256	4.85
17	14	20	Westinghouse Electric.....	24.1	66	617	3.97
14	19	21	Montgomery Ward.....	21.7	54	336	5.16
16	21	22	Sears, Roebuck.....	21.6	39	397	1.68
27	42	23	Atchison, Topeka & Santa Fe.....	21.6	44	237	4.88
26	22	24	Bethlehem Steel.....	21.4	49	418	4.37
—	27	25	Aluminium, Ltd.....	21.3	37	206	5.04
28	29	26	Middle South Utilities.....	20.7	53	890	13.39
30	25	27	Skelly Oil.....	20.4	31	224	7.81
42	36	28	Niagara Mohawk Power.....	20.3	57	770	7.37
41	47	29	Chrysler Corp.....	20.2	48	258	2.97
31	23	30	Humble Oil & Refining.....	19.9	22	259	0.72
38	26	31	American Gas & Electric.....	19.7	50	334	5.69
43	30	32	Johns-Manville.....	19.6	45	262	8.27
47	17	33	American Cyanamid.....	19.4	47	169	3.98
37	34	34	Socony-Vacuum Oil.....	19.4	55	495	1.56
—	41	35	Panhandle Eastern Pipe Line.....	19.2	27	250	7.91
—	46	36	Shell Oil.....	19.0	33	234	1.74
45	35	37	Central & Southwest Corp.....	18.5	57	994	11.72
32	38	38	Cities Service.....	17.2	39	163	4.20
29	37	39	International Nickel.....	17.1	35	379	2.60
24	39	40	American Viscose.....	17.0	42	260	6.35
—	—	41	Seaboard Air Line Railroad.....	16.6	21	176	20.76
—	—	42	Illinois Central.....	16.4	29	221	16.24
—	—	43	General Public Utilities.....	16.3	45	708	8.32
33	40	44	International Business Machines.....	16.2	26	74	2.43
39	43	45	Pure Oil.....	16.2	47	244	6.14
35	28	46	Phelps Dodge Corp.....	15.9	40	463	4.56
—	50	47	National Lead.....	15.8	29	492	4.84
21	24	48	United States Steel.....	15.6	38	389	1.49
—	—	49	Union Pacific.....	15.1	38	132	2.97
36	49	50	Ohio Oil.....	15.0	40	254	3.87

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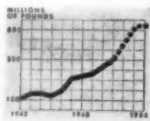
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INTERNATIONAL OUTLOOK

BUSINESS WEEK
OCTOBER 4, 1952



October is the month of meetings. Both East and West are sitting down to chart a course for the future.

- The U. N. General Assembly reconvenes in New York Oct. 14; Korea will get a new airing.

- Russian communism will hold its first full party congress since 1939 in Moscow, beginning next week. In Peiping, a new "peace conference" aims to stir up Communists and neutrals in the Far East.

- Besides that, Britain's Labor Party wound up a conference this week with a slight jog to the left. And the Pinay government will fight for its life in the French National Assembly, meeting next week.

A flood of empty debate and propaganda hogwash will doubtless dominate some of these sessions. But there are also likely to be important omens of things to come.

Secretary Acheson will make a full-dress defense of U.S. policy in Korea at the U. N. opening. And he'll threaten Moscow and Peiping with new tough tactics if they won't agree to a truce.

He may be aiming as much at the U.S. voter as at the Kremlin. Administration field men report from the grass roots that Korea is the Democrats' biggest weakness. They'd like to pull a truce formula out of the hat soon.

But the hat is empty. Short of carrying the war to China there isn't much we can do.

We're pasting the Reds as hard as we can from the air without crossing the Yalu River. That kind of adventure—an invasion—is pretty well out of the cards. And breaking off the truce talks wouldn't accomplish anything.

Something may come out of the U.N. meeting, though. Moscow evidently has some plans, will field an unusually powerful backfield in New York (Vishinsky, Gromyko, Malik, and Zorin).

Scholars and statesmen will be watching next week's Communist congress with an eagle eye—straining for a glimpse of the new party line.

There are some signs that the "popular front—peaceful coexistence" theme will get a new play (BW-Sep.20'52,p160). Perhaps the Kremlin figures it can dig in for a while and watch the capitalist world crumble under the pressure of rearmament. There are even murmurings of a new Soviet compromise bid on Germany—aimed primarily at the jittery French.

But how do you square peaceful coexistence with the mounting "Hate America" campaign, the vicious attacks on Ambassador Kennan, hotter fighting in Korea, warlike gestures in Communist China (page 147).

Meanwhile, French Premier Pinay is battenning down the hatches for a blow in the French National Assembly.

Pinay's stiff price controls are the problem. Farmers and small businessmen are sure to pressure Pinay to ease up.

The government will have to thread a delicate course: Resist the pressure, but at the same time retain support of the farmers and businessmen.

Pinay has a good chance to succeed. His 1953 budget, balanced without new taxes, appeals to the middle classes.

But there are some dark clouds. The cost-of-living index crept up slightly in September for the second straight month. October may well

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK
OCTOBER 4, 1952

show a rise. That tends to dull popular enthusiasm for the Pinay program.

•
Britain's Labor Party has had a turbulent convention. Leftwinger Aneurin Bevan racked up an important victory.

Londoners tend to view the result more as a desire to demonstrate against the Churchill government than against the moderate Labor leadership.

The Attlee faction is doing its best to keep the party from moving any further to the left. It expects to be reelected—someday—and doesn't want its hands tied. But delegates wanted new slogans to rouse the boys back home.

It'll be a long time, though, before Bevan takes over. The bulk of Britain's union leaders, who control five-million of the Labor party's six-million members, don't like Bevan.

•
Actually, the party platform shifted only slightly to the left.

Restoring nationalization to steel and road transport (if the Tories manage to denationalize them) is now a formal party plank. Threats to nationalize other industries may yet appear. But Attlee and the big union guns will give the Bevanites trouble yet.

•
The British Textile Industry has made its recovery. The year-long recession is about over. But some hard goods industries are beginning to lose ground after a six-year boom.

Makers of consumer durables report a dropoff in new orders. Activity is slacker in radio-television, home appliances, some autos. There's an easing in some capital goods lines, though many businessmen are still hollering for more steel.

•
Gen. Naguib has begun what may be the last big battle in Egypt's bloodless revolution—breaking the powerful Wafd party.

There's not much doubt about the outcome. Naguib has the army, now backstopped by overwhelming popular support—almost worship—thanks to their leader's promise of land reform.

Washington is betting on Naguib's success. He's given assurance that he'll play ball with the West on Middle East defense and the Sudan issue—despite anti-British speeches for home consumption.

Once the Wafd bows Naguib will be in the clear. Only failure to carry through his promised reforms could unseat him.

•
Washington is urging the British not to reject Mossadegh's latest oil note out of hand. We're warning London that U.S. independent oil companies won't stay out of Iran indefinitely.

Alton Jones of Cities Service has broken some ice, given other independents the idea. The State Dept. has received a number of inquiries. Hussein Makki, Iranian oil expert now touring Texas, reports several serious offers to buy. He's peddling the oil at a 20% discount.

•
State is discouraging the independents now. It knows that U.S. poaching in Iran could touch off a major diplomatic crisis with London.

State knows, too, that public opinion would force it to back U.S. oil independents if they headed for Iran and got in trouble with the British.

BUSINESS ABROAD



JOSEPH STALIN looks benign as Premier Chou En-lai signs Sino-Soviet pact. Behind the amiability lies a new role for . . .

Red China: The Kremlin Takes a Partner

It's clear now that Mao Tse-tung is master at home—and destined to play some key roles abroad.

More than one Allied policymaker has comforted himself with wishful thinking about a split between the Soviet Union and Communist China. Yet today the chance of Chinese "Titoism" is still a faint will-o'-the-wisp. The Moscow-Peiping alliance appears stronger than ever. In terms of manpower and resources potential, it makes the Axis that menaced the world in 1938 look like peanuts.

Last week, the new axis wound up what may have been its most important meeting in Moscow. Chinese Premier Chou En-lai returned home to Peiping, amid echoes of a joint Soviet-Chinese communique that glowed with good fellowship but actually revealed little or nothing. A lot more important is the fact that a corps of top-rung Chinese officials—economists, military men, machinery specialists—stayed on in Moscow to hammer out details of the agreements which were reached by their leaders.

• **Summing Up**—Despite the dearth of official news, there's enough in the Soviet and Chinese press, and in reports from Hong Kong and Japan, to draw

some tentative conclusions on the shape of the alliance:

- Red China is no satellite—rather a junior partner in the world Communist enterprise. Mao Tse-tung has some important responsibilities abroad, and is undisputed boss at home.

- The partners appear to have agreed to a lend-lease economic relationship, much like the U. S. system with its allies during wartime.

- Mao Tse-tung has totally abandoned his aim of a "balanced" agricultural and industrial revolution. Arms buildup has become the overriding consideration.

It doesn't add up to an encouraging picture for the West. More and more, the Chinese-Soviet alliance takes on an offensive, aggressive character.

I. Partner, Not Puppet

Moscow has realized that it can't control Peiping in the high-handed fashion it runs the European satellites. In domestic political affairs, Mao and Chou En-lai are the masters of China. That includes Manchuria, too, despite the

continuing Soviet interest in military bases in the Port Arthur area (BW—Sep. 20 '52, p. 160).

In matters of world strategy, Peiping yields to Moscow's seniority. But it does have the important job of directing activities of Communists in the rest of the Far East, including the Japanese and Indian parties. Beginning this week, Mao is playing host to Communists and fellow-travelers from all over the Orient in a long-advertised "Asian Peace Conference."

There's a sharing of responsibility in economic affairs, too. Generally, Peiping's industrial plans are being integrated with Moscow's Five Year Plan for Siberia. At first, Mao planned a heavy industrial complex in the northwest, a base for expanded consumer goods production. Instead, Chinese metal processing plants are to be converted to an armaments industry capable of supplementing Soviet supplies.

- **Railroads**—Another big job of the Soviet-Chinese industrial partnership is to wind up construction of the strategic railroad net linking Siberian heavy industry with Manchuria and some of the industrial centers in southern China (BW—Dec. 22 '51, p. 93).

Trade patterns are changing, too. They're more a variation of the lend-



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lease system than the more normal trade agreements—cash or barter—which prevail between Moscow and the European satellites.

Soviet military procurement for the Chinese armies in Korea has already far exceeded the \$300-million credit China received in 1950. Repayment in raw materials and dollars, stipulated in that agreement, is impossible. China's indebtedness to Moscow is skyrocketing, thanks to diminishing Chinese trade with the West. According to Soviet economists, more than three quarters of Peiping's foreign trade last spring was with the Soviet bloc; pre-Korea, 78.8% of China's imports came from the West, which took 70% of its exports.

• **Trade Deal**—Now there are hints of new economic arrangements. One covers non-military trade; Peiping has joined the European satellites as a member of the "Soviet Mutual Assistance Program." While Peiping hasn't got a chance of keeping its Soviet trade in balance, the Kremlin doesn't worry. A large part of the manufactured goods imported by China will come from Eastern European factories (page 153).

Another agreement, involving military hardware and transport, is apparently pure lend-lease. It's certain to be for a hefty amount. To equip a modern Chinese army of, say, 3-million will cost billions of dollars, even in Asia.

II. Arms Come First

Militarization has had an important effect on all aspects of Chinese life. Businessmen and economists look first at the budget. Peiping's 1951 spending amounted to \$5.5-billion and receipts to \$4-billion, with a \$1.5-billion deficit. Estimates for 1952 aren't available, but a deficit of \$2-billion is likely. Compare those figures with pre-revolutionary budgets which rarely topped \$500-million. And remember that the Chinese national income isn't more than \$15-billion.

Over the past three years, Peiping has balanced its finances by mass squeeze techniques—plumping "Victory Bonds," "Aid to Korean Volunteers," and the blackmail of Chinese residing abroad. But the present "Anti-Five" campaign tops them all. Not only does it aim to milk the urban classes of some \$500-million (as a first installment), but it also plans to finish off private enterprise in the bargain.

Thousands of "people's committees" are investigating all industrial and commercial enterprises not yet state-owned. Businessmen are supposed to confess to the "Five Poisons"—graft, tax evasion, illegal profits, exploitation, hidden reserves. Of Shanghai's 164,000 or so business establishments, only 15%

were found to be "law abiding." The rest caught heavy fines—often so heavy that the government took them over.

• **Inflation**—These draconian measures have worked—at least to the extent that China's post-Korea inflation has been reduced. But it's a question whether Peiping can continue to keep inflation within bounds by such tactics. On the whole, China hasn't been able to boost farm and industrial productivity.

Still it would be folly to expect a serious crisis in the Red regime, inflation or no. The totalitarian machine has taken over every nook and cranny of Chinese life.

III. What's in the Cards?

The goings-on in China, the tightening bonds with the Kremlin, don't look like the peaceful consolidation of an agrarian revolution. Instead the objective appears to be an overwhelming Communist military superiority in Asia—to intimidate the fence straddlers and Japan during the cold war; perhaps to set up an armed sweep through Southeast Asia for someday in the future.

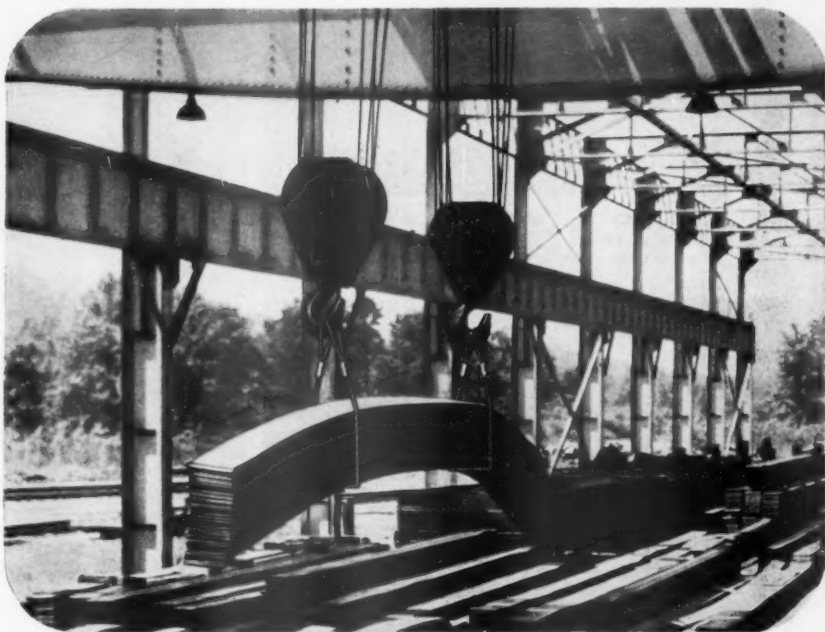
For the present, statesmen are wondering how China's stepped-up militarization and the Moscow conference will effect the Korean deadlock. There are plenty of conflicting theories. One holds that, under the Chinese build-up, the Korean war could go on indefinitely, affording a unique training ground for a modern Chinese army. There would also be added benefit of tying down a sizable hunk of the free world's military forces.

Others believe that Allied bombings (particularly of the Yalu power plants) have convinced the Chinese that they could use a breathing spell—especially in view of their long-term objectives.

There's no answer to these questions yet. But beginning this week there may be some hints of the direction of the party line—with both the world Communist Party congress and Peiping's Asian peace get-together getting under way.

The Pictures—Cover by Bob Isecar. Aluminum Co. of America—58; The Austin Co.—52, 54 (top); Boeing Aircraft Co.—84; Bill Clinkscales—120, 121; Ford News Bureau—90; Martin Harris—178, 179, 180; Frank Higgins—160; Int. News—30 (bot.), 158; Bob Isecar—54 (bot.), 116, 150, 151; Sid Karson—46; William Kearns—30 (top, ctr.); McGraw-Hill World News—152; Bill Mainville—66; Photo Hawaii—132; Pics Chicago—68; Sovfoto—147; Bob Towers—98, 99, 100, 102, 104, 106; United Press—64; Wide World—31.

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CHAMPAGNE Mme. Jacques Bollinger, head of Maison Bollinger, Ay-Champagne, France, is queen of Wile's foreign suppliers. She's talking with Julius Wile, grandson of company's founder, at Wile get-together party.



LIQUEURS Courty, dignified Marcel LeGrande is director of Benedictine, S. A.—whose liqueur is Wile's best-selling import. He figures there's an almost unlimited market for his product in the U. S.



CORDIALS Paul Garnier (left), boss of French cordial firm bearing his name, talks shop with Wile's Chicago distributor, Larry Cohen. Lower-priced Garnier cordials are manufactured in U. S. by Wile.



SHERRY Richard Bett, London, supplies Wile with its line of sheries and port.



IMPORTER Richard L. Blum, Jr., president of Julius Wile Sons & Co., stands over some bottles he hopes will put . . .

French Accent in U.S. Drinking

"Fifty years ago Mrs. Astor used to throw a party and use 50 cases of champagne in one evening. Today, hundreds of persons are each likely to use a case, and a lot more may buy a bottle or two for a birthday party."

That, according to Richard L. Blum, Jr. (above), president of Julius Wile Sons & Co., is the beautiful thing about the alcoholic beverage importing

business. More and more Americans are being introduced to fine wines and liquors—domestic as well as imported—thanks to more money-in-pocket, national brand-name promotion, and trips to Europe. "We're educating the U. S. palate to genteel drinking," says Blum, "and we're still a young business."

• **75th Birthday**—In point of years, however, the House of Wile is an elder

statesman in the import business. Last week, the firm was celebrating its 75th year with a five-day convention in New York. Wile executives, salesmen, distributors, and the firm's distinguished foreign shippers (left) were on hand for sales meetings and get-acquainted sessions—plus a round of social events and plenty of genteel drinking. Optimism effervesced as freely as Wile's

The Communists Go

Bollinger champagnes: The company, which does between a \$5-million and \$10-million business annually, is expecting its best year ever in 1952.

• **Slight Sag**—That may mean bucking the trend, according to some experts in the alcoholic beverage field. Total U. S. consumption of hard liquor (whiskies, brandies, rum, and gin) has slid off about 10% in the first half of this year (page 46), due largely to increased taxes. Imports are bound to suffer; figures on arrivals in the U. S. of some wines, brandies, cordials, rum, and gin have showed a pronounced dip. Fundamentally, the more expensive lines haven't done so well, while cheaper items are standing still or gaining.

Despite this, most liquor importers won't lose a lot of sleep. Like the market for Cadillacs and concert grand pianos, theirs is a class business; its swings up and down are seldom violent.

Take Wile's line. It's expensive, and often not the kind of product bought in large quantities. Benedictine liqueurs, Bollinger champagne, Peter Dawson Scotch, and Dry & Sack Sherry are the "big four"—making up the lion's share of sales. They're backstopped by cordials, port, rum, brandy, a string of Italian, French, and German wines. In addition there's a stable of lower-priced, made-in-U. S. products, including champagnes and a line of cordials bottled at the Wile plant at Teterboro, N. J.

• **Broader Base**—Wile figures that come rain or come shine there will always be a hard core of connoisseurs who drink Benedictine, or others of the quality products. What Richard Blum is trying to do is to expand that narrow base of regulars. Right now, imports of many items aren't much more than a drop in the bucket of domestic consumption. Cordials and liqueurs from abroad add up to only 7.4% of total U. S. consumption, gin is 0.9%, table and still wines 6.2%, dessert wines 0.8%. On the other hand, imported champagnes and sparkling wines come to 35.9% of total consumption, vermouth 34.5%, and brandies 28.2%. Scotch and Canadian whiskies amount to 10% of a total whisky consumption of 165.9-million gal., a healthy slice of the business.

• **Sales Lures**—Expanding the base for many imports won't be easy—they will always be in the top price brackets. But there are plenty of merchandising gimmicks to be tried. One of Wile's West Coast distributors tries to talk restaurants into offering a glass of creme de menthe instead of dessert. This has paid off when it has been used—patrons usually order another glass.

Advertising and promotion campaigns of domestic producers usually help the importers, according to Blum. "All we want is to get more people drinking wines and liqueurs. Then sales of imports will take care of themselves.



RED CHINA

came to show off its new spinning machines as symbols of progress under Red rule.



EAST GERMANY



EAST GERMANY

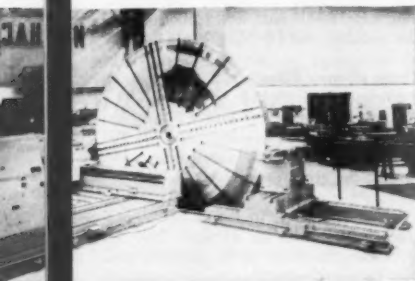


SOVIET RUSSIA

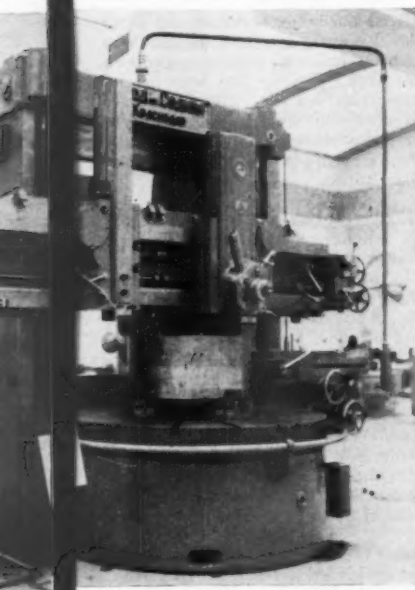
Go to the Leipzig Fair



kept a sharp lookout for possible markets for these 100-passenger, double-deck buses.



sought out China, in particular, as a customer for its machine tools, such as this heavy lathe.



put on the biggest show, thought Middle East, India, Pakistan might buy its machine tools.

Each September for several years, Leipzig, East Germany's 16th-century fair city, has been taken over by the commissars of Communist industry. They come from Peiping, Moscow, Prague, Budapest, and Berlin to unveil the latest results of "socialistic achievement"—always, of course, underlined by a dominant political aim.

• **A Message**—In 1950 the theme of the Leipzig Fair was East-West trade; in 1951 it was all-German unity. This year the visitor was bombarded with two political objectives: Independence from economic ties with the West and help for undeveloped countries.

Heavy engineering, transport, and chemical displays dominated the 18 exhibition buildings in the city and the 13 massive halls two miles out. Many of the country halls—especially the Chinese exhibit, which was heavy on machinery (picture)—were designed only to impress, not to do business.

• **Business, of a Sort**—But business was being done. At the Russian building, detailed catalogs of Soviet machinery were prominently displayed. They were written in English, but the market being wooed was hardly Britain or the U.S. It was India, Pakistan, and the Middle East, where most technicians speak English.

Over at the East German pavilion they were shooting for a different market. There visitors were met with a barrage of literature printed in Chinese. Heavy machinery got the emphasis, but Chinese traders were also told of the advantages of German dolls and violins.

• **Market-Hungry**—East Germans were not the only ones vying for a share of the Chinese market. Some 12,000 West German traders were on hand to plead their cause. The Hamburg Society for East Trade, whose membership consists of 300 market-hungry concerns, set up a pavilion in the center of the city. But the Society's activities may well have been overshadowed by the bigger-shot West German industrialists who did their dealing in the back rooms.

The Chinese exhibit—second in size only to Russia's—was the popular hit with the million or so visitors. Gone were the embroidered silks and delicate carvings that had characterized Chinese exhibits at earlier Leipzig fairs. This year heavy machinery got top billing. Main purpose was to show the advances made by China under Red rule. Actually, the Chinese must still import most of their machinery (page 147). That's why they've been pampered at the fair by everyone with machinery to sell.

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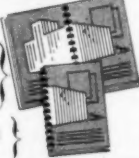


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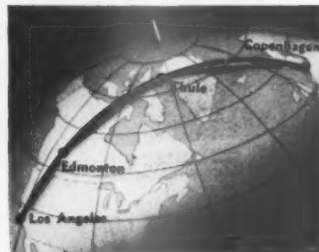
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BUSINESS ABROAD BRIEFS



Polar flights from Los Angeles to Denmark will begin when Scandinavian Airlines System gets the necessary permits. SAS will fly West Coasters to Europe in an overnight flight with stop-offs at Edmonton and the new U.S. Air Force base at Thule, Greenland. The new route will lop 1,600 mi. off the present run via New York.

Texas oil-man Glenn McCarthy signed a contract with Bolivia this week. The terms: McCarthy will invest \$3-million in a sulfur concession there; the Bolivian government will get an 8% royalty on gross exports.

Hashish smugglers in Egypt have operated underground for 33 years, but last week they came out in the open to protest Premier Naguib's campaign against the hemp-derived narcotic. Their slogan: "Whiskey drives you crazy... hashish makes you happy."

All-out war between Britain and Japan for the world textile trade was forecast by Japanese industry spokesmen last week. They say they must expand production and sales, that they'll have to move into British markets. They're pretty optimistic, feeling they can stand the losses of a price-cutting war better than Britain.

Heating controls will be manufactured by Minneapolis-Honeywell Regulator Co. at a new factory in Amsterdam. The plant in Holland is Honeywell's third manufacturing operation outside the U.S. The others are in Toronto and Blantyre, Scotland.

U.S. wool growers are urging the government to raise the present 25¢ a lb. tariff on foreign wool. The National Wool Marketing Corp. and the National Wool Growers Assn. say that with the present tariff, foreign wool is underselling the government support price of \$1.15 to \$1.17 a lb.

Italy's two-month-old ship subsidy plan has already led to orders for 20 tankers. Under the law government subsidies totaling \$20-million are to be provided during the next three years.

BUSINESS IN MOTION

To our Colleagues in American Business ...

Over 20 years ago Revere found that its technically-trained salesmen were devoting an increasing amount of time to the study and solution of problems concerning the specification and fabrication of the Revere Metals. As a result, the Technical Advisory Service was established as a country-wide organization of technicians, whose function is to collaborate with engineers, designers, and production men. This group constantly seeks ways to cut costs, improve products, or both. Some recent examples of accomplishment are given here.

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- A large hardware manufacturer was buying and stocking a great many types of materials, some differing only slightly. The T. A. Service collaborated with the engineering and production departments, and drew up simplified specifications for 225 items out of 360. Result: purchase of larger quantities in the most economical sizes, reduction of inventories, lessening of clerical work. The first year showed a saving of about \$25,000.

- For many years a famous fire extinguisher had been made by riveting and soldering. When it was decided to modernize the processes by use of seam welding, the Revere Technical Advisory Service was called in for consultation, since it had been decided to switch from copper to the much stronger silicon bronze.

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- Money was saved for a furniture manufacturer by using full-hard 3S aluminum tube instead of a softer temper which he had been specifying. The hard tube takes the forming operations perfectly. Did you know

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- A shipyard was using electrolytic copper sheets to make large-diameter pipes to carry cooling water to the condensers. After forming, the copper was brazed. While electrolytic copper can be brazed without much trouble, phosphor-deoxidized copper is superior in this respect, and a T. A. pointed out that on such a large job it might save money. The shipbuilder tried it, and found that the time saved in forming and brazing more than made up for the extra cost of the material.



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LABOR

GE or IUE—Who's in the Middle?

To walk out or not—that's the big problem facing Jim Carey's IUE as it meets in Pittsburgh next week.

It's complicated by IUE's long-standing battle with the left-wing electrical union.

It's compounded by growing factionalism within the Carey union—there are signs the rank and file won't go all the way with their president.

The big problem before the annual convention of CIO's International Union of Electrical Workers in Pittsburgh next week might very well be: What will IUE do about General Electric?

IUE represents some 71,000 GE workers. It is threatening to call them off jobs in 60 plants "when and if" it becomes necessary to back up union demands for a "fair" contract. By that the union means something better than the contract signed recently by GE and the United Electrical Workers (ex-CIO), IUE's to-the-death rival in the electrical-manufacturing field.

There is some doubt now about whether IUE's leaders—including the union's firebrand president, James B. Carey—could get 100% support for a GE strike. As a result, the GE situation is never going to be far below the surface of business at IUE's Pittsburgh convention sessions.

• **Background**—The fact that IUE couldn't count on blind unanimity in its get-tough bargaining policy with GE burst out into the open last weekend. The CIO union's biggest GE local, bargaining for 21,000 at Lynn, Mass., voted against striking and for accepting a company contract offer—the same terms on which UE already had signed.

About the same time, another GE local with 3,300 members in Philadelphia rejected IUE walkout plans and called for accepting the company's terms.

And, perhaps by coincidence, IUE called off plans for a nationwide strike vote in all of its GE locals. It revised its strategy, convening the 70-man policy-making IUE-CIO GE Conference Board in New York to authorize strike action against GE on a "when and if" basis. The authorization was unanimous, despite the vote in Lynn and Philadelphia locals.

The board action—by a body closely sympathetic to IUE's top leaders—

couldn't conceal the fact that there is in IUE a rank-and-file reluctance to quit jobs in the face of GE's announced determination to "take a strike, if called, rather than be forced to go beyond what we believe is right."

• **Reasons**—In part, this rank-and-file sentiment is economic; there must be considerable doubt in IUE that a strike against GE would add more cash to paychecks than the company had offered, and not many unionists in GE plants can get really enthusiastic about what would be a tough struggle for other than money issues.

In part, the sentiment is political. For months it has been an open secret that IUE—like many CIO unions before it—is troubled with factionalism. Some of the men who were leaders in the split from leftist UE in 1949 and in the founding throes of IUE broke with Carey early this year. They criticized "Carey's irresponsible acts," including his "practice of negotiating with management on his own" in a way that they said jeopardized the welfare of the workers represented by the union.

They protested also what they called a "purge campaign" against several top leaders of the split with UE who maintained an "independent" attitude toward Carey—including, perhaps significantly, Fred Kelley, long influential in the Lynn GE local.

• **Carey Bitter**—One thing heard more and more frequently in the union is a questioning of Carey's emotional unionism. For two years at least, the particular targets of his tirades have been the "Communist-dominated" UE and GE—accused by Carey of "collusive" policies aimed at weakening IUE and strengthening labor's left wing.

Two weeks ago, Carey opened a new attack on GE, criticizing a contract offer by the company as "unsatisfactory" and terming UE's accept-

ance of the offer a "sellout" of that union's members.

Carey charged that GE could make and press its offer only because it knew in advance that "UE would take whatever the company offered it, simply because it (UE) isn't able to win more."

If the GE offer had been strictly unacceptable, Carey's charges would have rallied considerable support among IUE's members in GE plants. There wasn't any such evidence.

• **Westinghouse**—GE settled with UE and some 70 other unions, the latter representing only minor groups of employees, for a 5.76% increase in pay—raises ranging from 7½¢ to 13¢ an hour, and averaging 10¢.

Of the 5.76% given by GE, 3.26% covered the rise in living costs since a GE settlement last year, and 2.5% was granted to maintain parity with increases granted by other companies. The full amount of 5.76% matches the cost-of-living and "annual improvement" raises given under General Motors-type contracts—but in a way that avoids committing GE to the principle of automatic productivity increases annually, justifiable or not.

IUE couldn't very well call these wage terms unacceptable; it signed for 7½¢ to 13¢ hourly raises, averaging the same 10¢, in a contract agreement with Westinghouse Electric Co. just last week.

• **Other Issues**—It was therefore limited to attacking GE settlement terms that might be important in a contract, but that do not show up in a paycheck week in and week out. For instance, IUE complained that GE's settlement with UE and the other unions cut paid holidays in 1953 from the seven in 1952 contracts to five—because two 1953 holidays for which workers normally get paid will fall on Saturday, when workers are off and not entitled to holiday pay. UE did not insist that special provisions be written into the contract to require payment for at least one of the two Saturday holidays; IUE does.

For another thing, GE improved its welfare benefits in the contracts signed with UE and other unions, but refused—when IUE insisted on it—to agree to discuss pensions and insurance benefits, as well as wages, in a contract reopening next March. Westinghouse agreed to do this.

And GE's contract with UE does not provide for any form of union shop—something IUE demands from GE, and

won in a modified form from Westinghouse.

To IUE's top leaders, these are important issues, enough to bring from Carey a warning—directed not at GE but at IUE members in GE plants—that he would resign his IUE presidency rather than accept GE's "unsatisfactory" offer.

• **Convention Issue**—Efforts will certainly be made at IUE's Pittsburgh convention to muster solid backing for the Carey stand. But that stand will be opposed in what might prove to be a rough-and-tumble floor fight among some 700 delegates representing a claimed 370,000 members.

There's a strong bloc that believes that IUE—on the defensive, out to show it can do better in bargaining than UE—could have settled first, and left weaker UE in an even poorer, more untenable defensive spot than that IUE now occupies.

Pension Assist

Tax laws give unions a lever to pry higher rates from companies that now make fixed payments to funds.

Industry is facing strong demands for higher pensions. And more than just normal collective bargaining will be involved. Corporate tax laws are working on the side of the unions.

• **Starting Point**—At first, only those employers whose contracts require fixed contributions (usually 6¢ to 8¢ per man hour) into pension programs will be approached. If these agree to adjust pension payments upward, all industry will be requested to raise retirement pay.

It all stems from the recent increase in federal social security benefits. For many employers, the boost may not be the windfall they expected (BW—Aug. 16'52,p138).

Under federal corporate tax laws, payments into industrial pension funds are a deductible business expense—but only if the payments are made on a sound actuarial basis.

Today's pension plans were set up, of course, with an eye on that provision. The employer's contribution was worked out to cover the cost, on a sound actuarial basis, of pensions running \$100 or \$125 a month, including federal benefits figured on the then-existing social security schedule. Now that the government is paying a bigger share of the \$100 or \$125, management's monthly costs run substantially less. As a result, companies that pay fixed sums into pension funds are contributing more than is actuarially necessary—

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*From text of speech delivered to Tulsa Chamber of Commerce August 21, 1952.

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• **Choices**—To the unions, and particularly to pension-wise United Auto Workers (CIO), employers have two alternatives: They can either reduce payments into pension funds, to what is actuarially required, or increase retirement benefits.

Obviously, unions have no intention of consenting to the first alternative; they intend to fight for the second. Where plans are administered by company and union jointly, they may succeed.

However, another alternative suggested by corporate tax experts will carry a lot of weight with management. The experts say employers should continue present higher-than-necessary pension contributions, earmarking the extra payment for a speedier amortization of past-service liabilities—costs accrued in providing pension credits for employees for the years prior to the establishment of a pension fund.

Most plans are set up now to amortize past-service liabilities in 30 years; under tax laws, amortization can be completed in as few as 10 years. Tax experts suggest that undertaking a faster amortization now, while times are good, might give management an effective cushion against possible worse times later.

• **No Leverage**—Most major companies carefully avoided providing for fixed contributions to pension funds when they wrote their contracts. They agreed only that pension funds would be kept in an actuarially sound condition. So UAW can't use the tax law as a lever in lifting pensions paid by such companies as General Motors, Ford, General Electric, and Chrysler.

However, there are enough plans calling for fixed payments to provide a broad area for union pressure among smaller employers. If some agree to reopen contract pension clauses, and to increase benefits, the effect will be felt throughout industry.



SOUTHERN NEGOTIATOR Joseph Moody (third from left) reports to producers as . . .

Southern Coal Men Go Along with Lewis' Terms

At midweek, the bulk of the Southern Coal Producers' Assn. bowed to the inevitable, accepting John L. Lewis' terms for a new United Mine Workers contract (BW—Sep. 27 '52, p. 138). The decision came hard: Operators complained it will mean closing down many less-mechanized, hard-labor mines, where costs always run high. The alternative, a strike, was even less to their liking.

While most of the Dixie producers reluctantly went along with their SCPA decision, a few held out at first, notably R. E. Salati (above, left), president of Island Creek Coal Co. of Huntington, W. Va., and a number of other

West Virginia operators. They got an ultimatum from Lewis: Sign up this week, or be shut down by UMW on Monday.

Lewis broke the ice toward his second strikeless contract settlement in two years with an agreement one week ago with the northern Bituminous Coal Operators' Assn. Through it, miners will get a \$1.90-a-day pay hike, if the Wage Stabilization Board will approve it (Lewis already has threatened that miners won't work after mid-October without the raise in their pay envelopes), and various fringe gains including 10¢-a-ton more for UMW's welfare fund.

Trouble in the Tool Shops

One Detroit outfit is struck, another transfers big job elsewhere. Row centers on contract clause concerning transfer of workers between departments.

After smouldering for months, a dispute between United Auto Workers (CIO) and Detroit tool-and-die shops took fire two weeks ago. One company transferred a big defense-tooling job to New England. UAW struck another.

The two flarups were sparked by a disagreement over a single contract clause. But broader policy considerations were involved.

• **May or Maybe?**—Contracts between UAW Locals 155 and 157, which represent some 10,000 employees in 150 shops, and the Automotive Tool & Die Manufacturers Assn., say that workers "may" be transferred from one type of job to another for seven days.

Companies contend this gives them all the authority they need to shift employees temporarily to wherever they are most needed. The UAW locals disagree. As the union interprets it, the provision means only that workers may be shifted for up to seven days if UAW is consulted first, and agrees.

The problem came up first at Vinco Corp., when management shifted a number of men, without prior UAW approval, into a shop department that was running up a lot of overtime on a big job. Some 300 production workers struck, citing the contract clause.

It came up again, almost immediately, at another shop doing tooling work on equipment for making 155 mm. shells. Management attempted to shift workers. The union objected. Because of the uncertainty over work schedules and the urgency of the tooling job, management shifted the entire order to New England.

• **Skilled Hands**—The two cases aren't by any means the first time members of the Automotive Tool & Die Manufacturers Assn. and the two UAW locals have clashed. For months, ATDMA has been criticizing union policy on skilled workers.

It complains that everybody is suffering as a result of:

• UAW insistence that workers cannot be transferred, except temporarily by prior labor-management agreement, from one department to another—even when one group of employees is piling up overtime and another is working a reduced schedule, or not at all.

• Union insistence on strict seniority for skilled workers on a machine instead of a shopwide basis.

• **Union demands** that tool-and-die shops hire for skilled jobs only those who carry journeymen's cards—obtainable only through UAW, presumably after 10 years' experience. UAW wants to make only one exception: It is willing to let employers hire in the open labor market if no journeymen are available.

Association members say this whole UAW policy on skilled workers is costing many employees a living wage—they've been laid off because there is no work for their machines, and they can't be shifted to others where their production is badly needed. ATDMA people also say that the policy is boosting production costs sky-high in Detroit because too much has to be done at premium-pay rates. It warns that the result may be a loss of Detroit shops to other cities.

• **Hiring Hedge**—Most Detroit shops now have a machine-seniority clause in contracts. Mostly they agreed to it originally because it would help them keep skilled machine operators who might be lost during layoffs under a shopwide seniority plan.

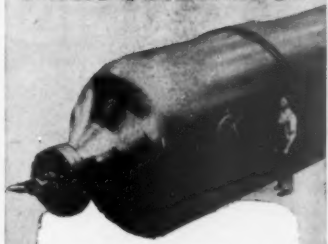
The clause has backfired, though, because the union has taken its stiff position against temporary transfers. As a result, many shops are running some departments on a heavy overtime basis, while other departments are on reduced schedules or are shut down—with men qualified to work in overloaded departments in layoff status.

Moreover, the effects are being felt in the apprenticeship program. Due to the machine-seniority clause, new apprentices are turning down machine jobs (where they are most needed) and demanding bench work because the pay may be higher, and because they would be linked by seniority to machine work, less in a position for advancement, more in jeopardy of layoffs.

Partially because of the experience with the machine-seniority clause, employers are strongly resisting UAW's efforts to hedge them in on hiring. Present contracts let them employ anybody they want—although as a practical matter, new employees who do not have journeymen's cards seldom last more than a few days among staunchly partisan UAW co-workers.

Going along with the union on the journeymen-only hiring plan would, according to one ATDMA member, simply mean getting hedged in tighter than association shops now are.

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EMPLOYEES SIGN UP for fall balloting, as Johnson & Johnson and CIO find that . . .

... is one answer to the problem of how to give work-

• **Too Early Closing**—There's a reason, according to New Jersey's politically alert CIO state leaders: When the 5 o'clock whistle shuts down a plant, registration offices generally close, too.

So during the last two weeks, CIO, with the cooperation of two of its major employers in New Jersey, tried an experiment: A Middlesex County (N. J.) registration office was set up in three large plants, to sign up workers for voting with a minimum loss of time—either for them or for their employers.

At Johnson & Johnson in New Brunswick, CIO's Textile Workers Union of America Local 630 cooperated with the company to set up registration facilities in the plant cafeteria (picture). New Jersey has permanent registration. So officials felt they did well in picking up 77 new voters in four hours.

Another 40 hours were added to election rolls through a registration bureau at a Studebaker Corp. plant, where a United Auto Workers (CIO) local

The New Jersey CIO tried initially to broaden its experiment to other counties. It got turned down. County officials said double-registering and other frauds might result.

Idea Snowballs—The implant registration idea isn't entirely new, or even limited to New Jersey. It's been done before, but mostly for one large plant only. Now, with 110 registrants in a matter of hours in just three plants, Middlesex's plan has caught public and labor attention. Mobile registration units will be a common objective wherever unions are pressuring for more labor votes.

Johnson & Johnson and Studebaker went along 100% with the implant registration. Other employers with the same objective have used different techniques.

In the Milwaukee area, Line Material Corp., an electrical manufacturer with 5,500 employees, used inplant registration at one plant. It also hired a fleet of cars to take employees and their families to registration points.

Line Material also is conducting a series of pep rallies (with attendance strictly voluntary) to spur employee interest in voting. Just before the election in November, the corporation plans to take a straw ballot of its workers—not, it says, to find how they intend to vote, but to familiarize them with the ballot.

Lighter Penalties

Enforcement officials are letting up on pay-ceiling violators. WSB wants to stiffen the penalties.

Employers who violate Wage Stabilization Board ceilings are getting off the hook a lot easier than they used to.

In a couple of earlier cases, enforcement commissions cracked down hard (BW-Mar. 15 '52, p. 164). Later, they appeared content to limit the penalty to disallowing excess wage payments for income-tax deductions. Now, the punishment may be even lighter.

• **Token**—One indication came last week. In a decision covering illegal payments by 13 ship-repair concerns, the New York regional enforcement commission let the employers off with little more than a token penalty because, it said, there were "extenuating circumstances."

The 13 shipyards were found guilty of violating pay ceilings covering 1,500 workers, and of making false statements before WSB. According to the wage board, over-ceiling pay between February, 1951, and March, 1952, totaled \$248,647.

The shipyard operators maintained that the overpayments covered wage increases negotiated before WSB's freeze date of Jan. 25, 1951. The enforcement commission reported finding that the yards had submitted dubious records to WSB to substantiate this claim. Even so, the commission didn't apply the usual sanction of disallowing total overpayments. Instead it only disallowed 15%, or \$37,297, of the \$248,647 of over-ceiling pay.

• **Special Case**—The reasoning behind the decision went something like this: (1) These shipyards are in a vital defense industry with critical labor shortages; (2) their illegal rates were comparable to legal ones paid at the nearby Brooklyn Navy Yard; (3) while they weren't granted before the cut-off date, the higher rates were really being negotiated at the time; and (4) the shipyards finally presented their case voluntarily.

Regional WSB officials are upset by the commission's ruling. They don't think it was tough enough. They maintain that (1) a primary purpose of wage stabilization is to prevent inflationary wage payments where the most pressure exists—in defense industries; (2) most violators can claim extenuating circumstances of one kind or another; and (3) a case where false records are involved, violators should get strict punishment.



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LABOR BRIEFS



STALEY AD in AFL automobile workers' paper promotes better employee relations.

Policy, not products is what A. E. Staley Mfg. Co. plugs in the space it takes in UAW-AFL's Labor News. Staley is a corn and soybean processor. There was no point in advertising this fact to its employees, so the company recently began a series publicizing its blood-donor program, credit union, and other employee services—and featuring pictures of union members wherever it could (picture, above).

Following up its request for changes in the General Motors contract (BW-Sep.27'52,p142), United Auto Workers (CIO) last week called on Chrysler Corp. and Ford Motor Co. for "improvements" in their five-year escalator contracts.

Arbitration plan accepted (11,855 to 3,091) by AFL longshoremen in East Coast ports averted a threatened coastal strike over wages, double-pay for overtime.

New president of CIO's Gas, Coke, & Chemical Workers is Elwood D. Swisher, 39, of Dunbar, W. Va. Swisher nosed out Martin Wagner, CC&CW president for the past decade, in an intense, sometimes turbulent political fight at the union's sixth biennial convention. Swisher is a veteran of the fight in 1948 to oust leftwingers from influential jobs in the union.

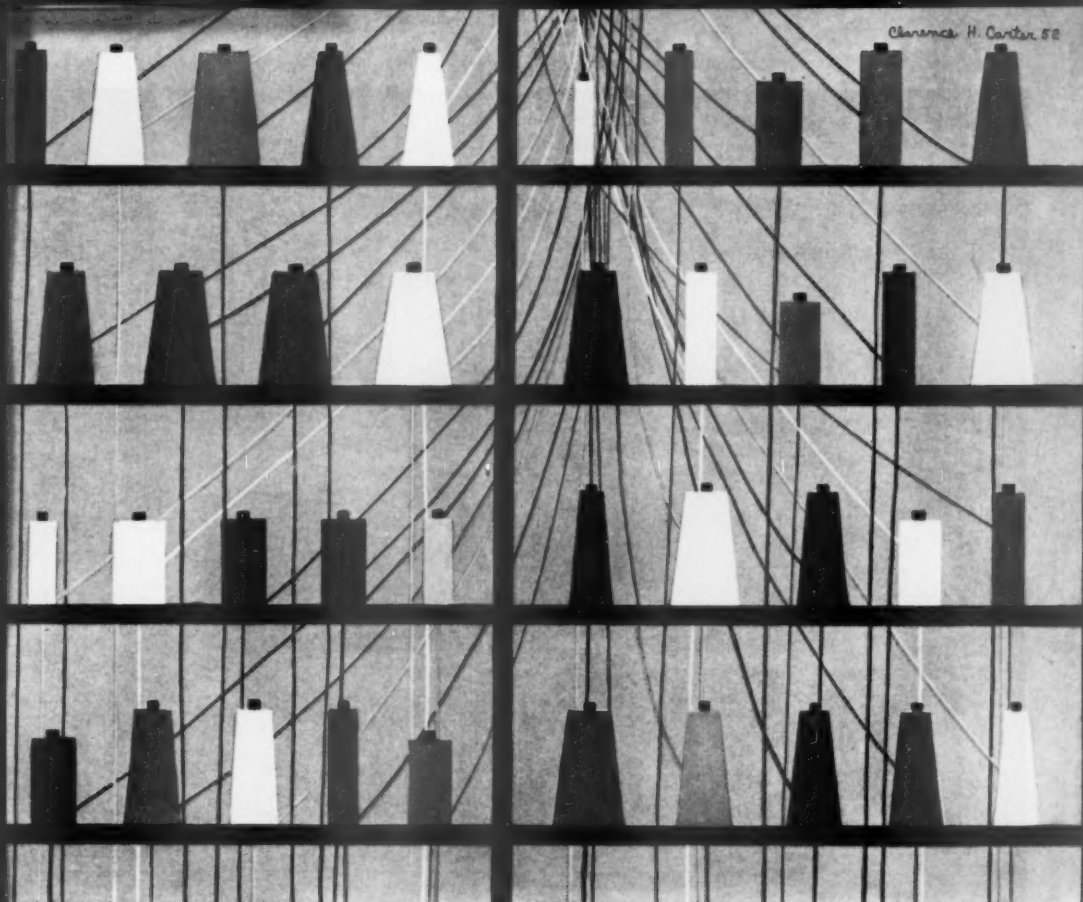
Strike at International Harvester Co. plants in Chicago entered its second month last week, with a claimed 183 employees of 12,000 back on the job—despite heavy Farm Equipment Workers picket lines (BW—Aug.30'52,p68).

Two unions—AFL's Retail Clerks and Hotel & Restaurant Employees—recently signed a joint contract with Snyder Drug Stores, Inc., covering employees in all Minnesota stores. This makes the contract unique: The unions agree that employees can transfer from job to job in the Snyder chain, and from union to union, without any change in seniority and other job and union rights, or any new union fees.

Membership gains haven't been spectacular in the past year, but the Foreman's Assn. of America—in convention this week—says they have been steady enough to "indicate growing interest in foreman unionism nationally." FAA, down to about a third of its one-time 50,000 members, plans to step up organizing work.

A 2¢ raise ups the pay of 1.5-million workers—mostly on railroads and in New England textile mills—as of this weekend. It's an escalator adjustment on the basis of the latest Bureau of Labor Statistics cost-of-living index, up 1.9 points for the three-month period ending in mid-August (BW—Sep.27'52,p152).

Auto mechanics, now largely nonunion, will be the target of the next organizing drive of the International Assn. of Machinists (AFL). IAM now claims to represent 81,000 auto repairmen, covered by 7,787 contracts. Since AFL's Teamsters also claim the men who service and maintain autos, trucks, and trailers, IAM's organizing efforts may stir new jurisdictional troubles.



Textiles...and *The National City Bank of New York*

Wonderful things are happening in the textile industry today. After four thousand years of handling only the natural fibers—cotton, flax, wool and silk—textile men are now also spinning and weaving miraculous man-made fibers produced to order in the laboratory.

The use of these fibers has skyrocketed almost tenfold in the last twenty years—from 159 million pounds of rayon in 1931 to an estimated 1,365 million pounds of man-made fibers in 1951. Rayon and other cellulose fibers are still the biggest item, but nylon, orlon, dacron, vicara, dynel, acrilan, saran and many others are beginning to pile up tonnage.

Millions of dollars were poured into the development of these and other fibers. Nylon and orlon together, for example, cost more than \$50 million to develop. To process the new fibers, to fill the still-growing demand for natural-fiber textiles, and to make ever-finer products, the textile industry itself has spent more than \$2½

billion since 1946 on mill expansion and modernization.

An industry dealing in such sums needs banking service of equal scope. That's why so many companies in the textile field come to The National City Bank of New York. Here they get the benefit of 140 years of experience, assets of nearly \$6 billion, and a world-wide banking organization.

National City has 67 Branches in Greater New York, and correspondent banks in every state. It has 57 Branches overseas, and correspondent banks in every important city of the world. The Bank's services are available to large or small businesses, and to individuals for their banking needs.

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The McGraw-Hill publications are a part of this American Inter-Communications System.

As publishers, we know the consuming insistence of editors on analyzing, interpreting and reporting worthwhile ideas. We know that businessmen, in order to keep abreast of their jobs, subscribe to—pay for—McGraw-Hill magazines edited for their specific business interests.

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. . . for the editorial pages tell "how" and the advertising pages tell "with what."

"See you at the polls"  NOV. 4th

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PERSONAL BUSINESS

BUSINESS WEEK
OCTOBER 4, 1952



Estate taxes are forcing a lot of executives to revamp their personal economics. That's behind the decision of one management man who recently sold a large block of his company stock.

It's harsh medicine. Cost of the sale will be 26% of the profit on the shares (capital gains tax), plus the probable expense of underwriting by a syndicate.

But the executive is up against this predicament: **At his death, estate taxes will drain off more than 70% of all his property.**

His liquid assets wouldn't cover that. Sooner or later, there would have to be a "forced" sale of the stock to meet the tax bill.

By selling now (at a price close to the stock's high) he is betting he can do more for his heirs today than later on—even after capital gains and inheritance taxes are taken into consideration. He's avoiding the chance that the shares might have to be dumped on a depressed market.

Much of the trouble—including taxes—that a man leaves his heirs is his own doing: **Almost 50% of the men who die before their wives haven't even bothered to make a will.**

The results can be painful: Property marked for your family gets dissipated in lawyers' fees, in court actions to determine the rights of beneficiaries, in accounting and investigation costs, added taxes.

Check yourself on these points:

- **Have you a will, and has it been examined since 1948?** Tax changes in the past couple of years—particularly the marital deduction provision which exempts about half your estate from tax—can mean savings for your widow.
- **Does your will have a common disaster clause—in case you and your wife die together in an accident?** Without one, it may take lengthy court action to determine who gets the property.
- **Does your wife have a will?** If she doesn't, and she dies shortly after you, what will happen to your estate?
- **Are your will and other papers (insurance policies, tax records) in a safe place—but one where other people can find them?**

Joint ownership of property is no substitute for a will. The fact is that joint ownership has definite disadvantages. Here's why:

(1) **It could mean greater estate taxes.** When you die all the joint property is included in your estate—unless your wife can prove her contribution. And that's often hard to do.

(2) **It may mean higher taxes if your wife sells your property later on.** When you will a house, it passes to your wife at fair value at the time of death. But if the house is in joint ownership, the value is original value—what you paid for it. That opens the way to a bigger capital gains tax.

Finally, don't be lulled into thinking your wife can always get immediate possession of joint property. Banks generally freeze all accounts at death. It might be months before she can get to the cash.

If you shop for clothes or furniture this fall, you're sure to hear about "naturalness." That's the catchword designers are using to describe the trend to new, less formal styles.

PERSONAL BUSINESS (Continued)

BUSINESS WEEK
OCTOBER 4, 1952

In men's wear there's a shift away from dressier worsteds into softer fabrics—tweeds, Shetlands, unfinished worsteds. And the single-breasted suit is on top of the pile—over the more formal double breasted. Two-button single breasted are expected to account for 60% to 75% of all models sold this fall and winter.

But the pure "natural" style—the unpadded, skimpy coat with pleatless stovepipe trousers—won't cause much stir outside of the East and college towns—where it's always been fairly strong. Most retailers say their customers won't shift to a less flattering suit—regardless of style.

Clothing prices, incidentally, are down from last winter. Sample: The Botany 500 suit, priced at \$69.75 last year, is now \$65.

•
"Naturalness" gets some play in home furnishings, too.

Fashion circles talk of the swing to unornamented design, of "landscape" colors, outdoor textured effects in materials. And last week's National Homefurnishings Show in New York gave some evidence of it. Exhibits were predominately modern, several with the new light, unadorned feel.

Against this, **lavish "clutter" is still the theme in the quality market.** Decorators' fabrics are rich and elegant, furniture styles ornate and traditional. There is heavy emphasis on Biedermeier, Empire, and Italian Provincial designs.

Sum it up, it's pretty much a case of anything goes.

•
There's money to be made in wine—if you buy and store carefully.

Right now the great 1947 vintage of European wines is in reasonably good supply; prices are low. But five years from now, prices are likely to be up about 25%. Good wines, like Old Masters, increase in value with the passing of time.

One fixed-income gentleman, betting on the richness of age, has rented space in a Brooklyn warehouse for five years. He has filled it with cases of Bordeaux and Burgundy.

Anyone with a **dry, cool storage room** could do the same thing on a smaller scale. If the investment fizzles, it's still pleasant to liquidate.

Other great vintage years to look for in buying: 1945, 1948 and 1949 for the German Rhines and Moselles.

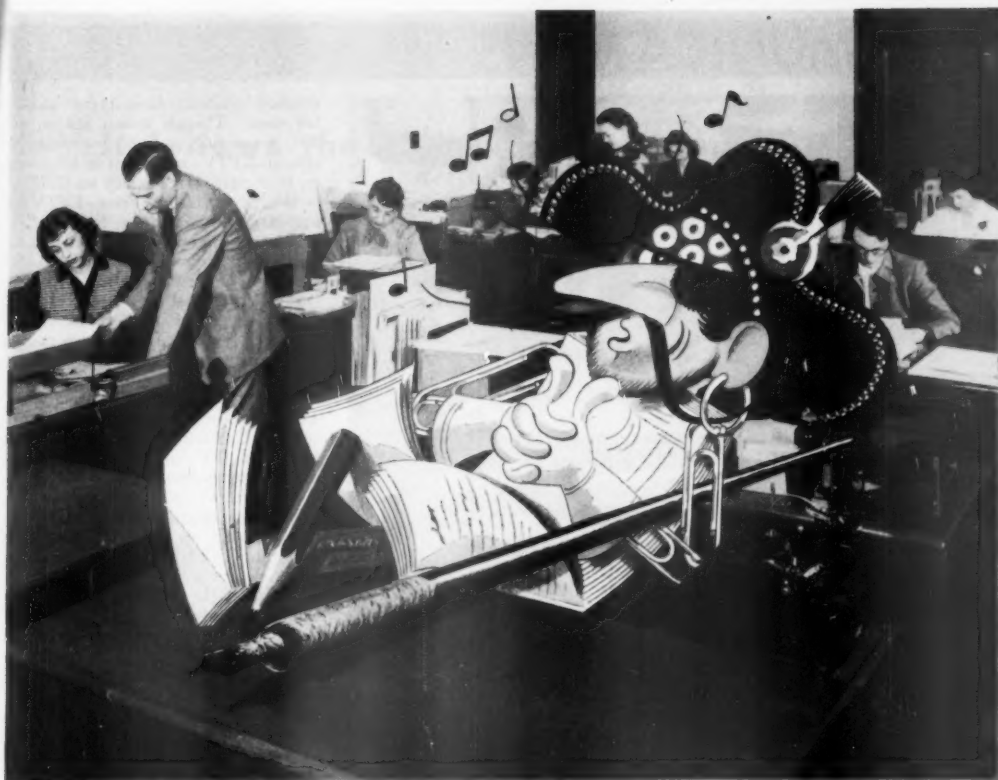
•
It's wise to check your fire insurance policy—in line with the replacement cost for your home, rather than the purchase price. Property values have doubled in the last 10 years.

One man who paid \$13,750 for a house in 1946 had it insured for \$12,000. A month or so ago, he was set to sell for \$22,500. Then fire burned him out, a week before title passed.

Now he's trying to replace his \$22,500 home—with only \$12,000 to spend

•
If you're selling your house to move into an apartment, don't jump at sprucing it up. It may pay you to sell at a reduced price and let the new owner do the painting and fixing. The cost of repairs, plus the higher capital gains tax you'd pay, might leave you on the short end.

Point to remember: You avoid the capital gains tax on house sales only when you buy a new home, and then only under certain conditions.



Is the Paperwork Pirate whistling while you work?

IF so, you are "paying the piper". Nothing pleases the Paperwork Pirate so much as watching clerical workers overwork. Of course your employees aren't in a whistling mood when they must spend long hours doing what a machine can do for pennies—in seconds.

Time spent writing the same information again and again breeds high clerical costs, lost production, wasted man-hours, poor employee and customer relations. Such inefficiency is sweet music to the Paperwork Pirate. Addressograph methods put the whistling back where it belongs—on the lips of your clerical workers.

With Addressograph you write mechanically from 30 to 50 times faster than with other methods. *All*

the code numbers, names, dates, descriptions or rates which must be written repeatedly in practically every department of your office or factory can be written mechanically at lower cost. Addressograph writing is sharp, clear, and *error free*.

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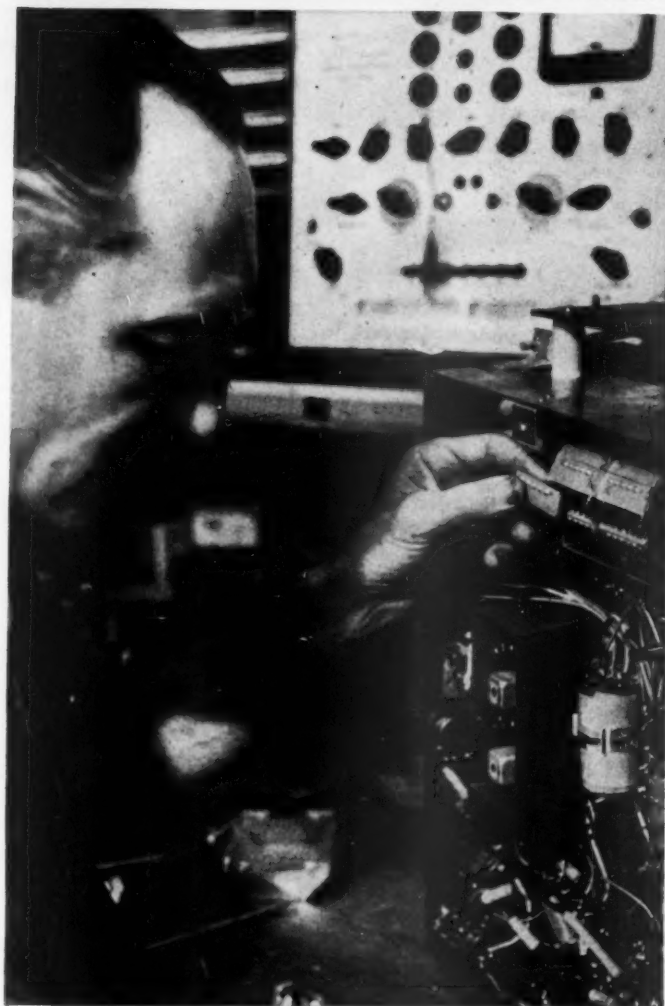
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COMMUNICATIONS



TROUBLE is one byproduct of the first ultra high frequency TV station in the U.S. Conventional sets must be re-tuned. Customers howl for service as . . .

TV Hits Portland with a Bang

Take any fair-sized U.S. city. Give all its neighbors television, but make this one city do without until it's seething with impatience. Then, suddenly, open up a station and start broadcasting.

That's about as good a formula as any for bringing the city's business to a boil.

To make it boil even faster, rig your station with a UHF (ultra high fre-

quency) transmitter. Since almost all TV sets now on the market are geared to receive only VHF (very high frequency) signals, this will send distributors, retailers, and customers scurrying for frequency converters as well as for the sets themselves.

All this is happening in Portland, Ore. TV-less longer than any other big city in the country, Portland finally

watched broadcasts from its own station last week. Though it was last to get TV, it was first in another respect: Its station—KPTV—is the first in the country to operate commercially on UHF.

• **Where It Came From**—KPTV is owned and operated by Empire Coil Co., a television parts maker with headquarters in New Rochelle, N. Y. Its president, Herbert Mayer, is an executive with a shrewd eye for opportunity. When he opened his Portland station last week, he added a surprise ending to a story that the television industry had been following for some time:

VHF was more popular than UHF when, last April, the Federal Communications Commission thawed out its freeze on TV and began allocating channels to prospective station builders (BW—Apr. 19 '52, p. 27). But some bidders—among them Mayer—decided to take a chance on UHF. Their reasons were that (1) UHF channels were easier to get, since fewer people wanted them, and (2) UHF television, engineers think, comes through more clearly; it's less subject to interference and produces fewer "ghosts."

After FCC began handing out the channel permits, eyes of the industry turned to Reading, Pa. Up there, a radio executive named John Greig was working on what he figured would be the first commercial UHF station (BW—Aug. 9 '52, p. 42). Working with him was General Electric Co. GE had developed a gadget called a Klystron, which put out a powerful UHF signal.

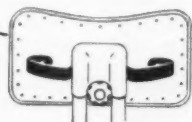
Meantime, up in Connecticut, Radio Corp. of America and National Broadcasting Corp. were field-testing a UHF transmitter of their own. Development work on it was about finished. It was actually operating.

This was where Mayer came in with his surprise ending. He wanted to be first in Portland with a station, first in the country with UHF. He knew he'd better hurry. So he went up to Connecticut, bought RCA's and NBC's transmitter outright, and shipped the whole works to Portland. Experts figured it would be three to five months before Mayer could get it rigged up again. But his technicians had it on the air with a test signal in three weeks.

• **Surprise**—This knocked Portland for a loop. Previously, Mayer had announced that he hoped to get KPTV on the air around Thanksgiving. Suppliers and retailers geared their operations accordingly, ordered TV merchandise for delivery in October. Then Mayer moved the date up to Armistice Day, then Nov. 1. Early customers began coming into the stores, bought sets and antennas before the probable

It follows the girl's back around all day

Sturgis engineers patented a regular clinging vine of a back support for stenographic and clerical chairs, called Follow-Flex. Let the girl turn right or left, lean forward or backward, the ingeniously steel-sprung Follow-Flex clings faithfully to her back. She loves it. So should you. A girl whose back is supported and relaxed all day long by a Sturgis Follow-Flex is an efficient and valuable girl. Although Follow-Flex puts in a busy day, day after day, it is built so well it will last as long as the chair itself — and that's a long, long time.



The secret of Follow-Flex is this steel spring which serves as a flexing agent between the comfortably padded backrest and the tubular steel back posts.

You can't see all the quality that's engineered into Sturgis chairs.



Sturgis chairs are engineered for keeps

You can't see all the quality engineered into a Sturgis chair but it's there in full measure—and because it's there a Sturgis chair is a long term investment in office comfort and efficiency. Today the finest executive, secretarial, clerical, guest and institutional metal chairs are being produced by The Sturgis Posture Chair Company, Sturgis, Michigan.





A salesman's success begins (or ends) at the home office!

Again customers are in the saddle and they're digging in the spurs. They insist on quick answers to inquiries, quick quotations and estimates, quick acknowledgment of orders, quick shipments, quick and accurate service throughout. And they'll get such service from you—or from your competitor.

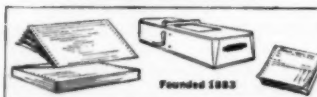
Unless his office backs him up all along the line, the best salesman who ever lugged a brief case can perform no better than a second-rater.

How does *your* office stack up on speed and efficiency? Are you still laboriously collating and typing cut forms and carbons (as many still do), when you could save time with continuous forms? Or have you examined your office forms recently to see whether some could be combined for a single typing?

If you are looking for ideas for streamlining your paperwork, just mail the coupon, mentioning the kind of forms to be designed, nature of business, and office machines used. We will gladly prepare a folder from our extensive Forms Library, containing typical samples used by other firms.

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Hoboken, New Jersey

We would like to receive a folder of sample continuous forms for.....
kind of forms

Forms will be used on.....
type of machine

The nature of our business is.....

NAME.....

POSITION.....

COMPANY.....

STREET.....

CITY.....STATE.....

"... they're running their plants overtime, shipping adapters via air freight ..."

COMMUNICATIONS starts on p. 170

rush started. Dealers were already nervous about the supply situation when, on Sept. 16, Mayer calmly announced that KPTV's first commercial broadcast would hit the air in four days. It did—on the evening of Sept. 20.

• **Converters and Adapters**—Before long, dealers were scraping the bottom of the barrel for TV sets. The supply situation was made even worse by the fact that KPTV was on UHF. A customer's set could no more pick up KPTV's signal than could his electric toaster, unless he had a converter or adapter strip to go with it.

A converter is an electronic gadget about the size of a small radio, which can be plugged into a VHF set to make it bring in UHF channels. It costs anywhere from \$40 to \$50. An adapter strip, costing from \$10 to \$25, fits into the receiver and brings in one specific UHF channel—in Portland's case, Channel 27.

Both converters and strips—as well as the television sets themselves—are in woefully short supply right now in Portland. Makers of the gadgets, such as Standard Coil Co., Los Angeles, had scheduled shipments starting around Oct. 1. Now they're running their plants overtime, bundling the adapters off to Portland via air freight. TV set makers are going full blast, too. RCA, for one, has set up a special assembly line to put built-in converters into sets destined for Portland.

• **Size of the Market**—Portland businessmen think it will be months now before the supply of sets and converters finally catches up to the present demand.

Prior to the time KPTV went on the air, Portlanders were able to get fairly good reception from Seattle's KING-TV. Retailers figure this sold some 3,000 sets in Portland. They originally estimated that KPTV would sell up to 150,000 more—mostly in the metropolitan area. But now it turns out that UHF signals go farther than had been expected. KPTV is operating at only one-fifth its full rated power.

But at Salem, a town some 50 mi. away from KPTV's transmitter, the station's first broadcasts came in so brightly that the few available sets in town went like hotcakes. Portland retailers have now added a good 25% to their original estimates of the approximate number of potential buyers of television sets.

• **The Denver Story**—A situation like this—tremendous demand and low sup-

SURVEY THE GULF SOUTH

...before locating your new plant

Put your engineers to work in the Gulf South, the dynamic empire served by United Gas. Learn why managements of so many industries have built new plants or expanded existing plants in this area in recent years. The Gulf South will meet your specifications for markets, manpower and materials — and offers you, in addition, adequate supplies of the world's preferred fuel, *natural gas*.

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GREENWICH, CONN.

ply—can lead to all sorts of unhappy results. Portland businessmen know this. They remember what happened in Denver, Colo., earlier this year.

Like Portland, Denver was one of the last big cities to get a TV station (BW—May 3'52, p72). When it did, pent-up demand came out of its cage like a tiger. Consumers were ready to buy anything that had a TV screen on it—for any price. The result was that truckloads of obsolete, spavined, and otherwise unwanted sets from all over the country were rushed to Denver and unloaded there. These inferior sets commanded premium prices. New sets sold for 20% to 30% more than in other cities. According to W. Dan Bell, director of Denver's Better Business Bureau, there are still 500 individuals or companies trying to sell TV in Denver—including a mortuary, a florist, an antique shop, and a gas station. Denver businessmen call it the "1952 gold rush."

• **Policing Job**—Denver's Better Business Bureau got things fairly well under control after a while. Portland's BBB, taking a tip from Denver, is setting up safeguards to prevent another version of the gold rush in its own city.

Among other things, the Portland bureau has started a file of distributor-authorized TV dealers in the city. In newspaper ads, the bureau is inviting citizens to query on doubtful merchants, warning prospective customers of the dangers of hasty buying.

• **Orderly Rush**—Even though Portland has avoided a gold rush so far, plenty of money is being made. A major bank estimates that TV sales will hit \$12-million by this time next year. Meier & Frank Co., big Portland department store, is said to have sold 150 sets the first day after it began full-scale advertising. Now it averages 100 sets a day.

Newspaper advertising, according to one newspaper executive, is "turning into a bonanza." Total TV advertising outlay for the first six months of KPTV's operation is expected to come near \$500,000.

KPTV itself is doing all right, too. Advertising spots in its first shows have sold fast. The station expects advertising from both local and national business to increase as the number of KPTV viewers goes up.

• **Station Operation**—Right now, the station's equipment consists mainly of a transmitter on a hilltop in Portland's city park. Its 41-ft. antenna stands atop a 210-ft. tower. KPTV engineers think this is plenty high enough, since the major population areas around Portland are on low and fairly flat territory.

KPTV has no studios of its own as yet. In about three months it expects to finish remodeling a factory building. Network shows and films will be its major fare until the studios are ready.

Radio on Defense

The government is ready to put its "Conelrad" plan into action. Here's how radio will operate in air raids.

The government is about ready to kick off to the radio-TV industry with Conelrad, a code of procedure for times of air raid danger. Conelrad will specify which stations must go off the air instantly in event of an air raid alert, and which stations will switch over to a special civil defense radio network.

The name is a bureaucrats' contraction for CONTROL of ELECTROMAGNETIC RADIATION. The plan combines ideas of the Defense Dept., Civil Defense Administration, and Federal Communications Commission for (1) keeping the public posted on civil defense messages during air raids, without (2) giving enemy air navigators any radio broadcast beams they can ride to target cities.

In the next few days, FCC will issue rules for radio and TV stations. By yearend, the special network of radio stations for civil defense will be ready for testing. More than 1,200 AM radio stations have already joined this network. These are the only stations that will stay on the air during an air raid alert.

• **When Alarm Comes**—Radio stations in the Conelrad network have been organized in a family tree similar to that of the nation's air defense command. Certain key stations will receive the raid message and pass it along to the other stations.

The first message would probably put commercial radio and TV stations off the air—either all over the country or in a designated portion of the U.S. as it shut down, each station would carry an announcement of where to find the civil defense frequency: either 640 kc. or 1240 kc. or both.

Civil defense stations on the 640 and 1240 bands will all carry the same "program": music, interrupted by announcements of how the threatened air raid is developing and of what each family should do for safety.

• **Stations' Problem**—Stations that volunteer for the civil defense network have to set up standby equipment to broadcast on either the 640 kc. or the 1240 kc. frequency. And they must also limit their output to 5,000 watts or less. They are organized in more than 200 regional clusters, plus a few individual stations too scattered to fit into those groupings.

A test is expected late this year, to give the engineers some practice in switching frequencies and power. After all stations have been notified, civil de-



Let there be light

There's an anxious moment as you stand in the doorway. Night has not quite lost all its old terror.

You snap on a switch and your house fills with heart-warming, fear-chasing light. The tired children sigh. Everyone chatters. It's good to be home.

A simple thing, a switch. But you expect it to work every time you flip it. That's why many manufacturers use beryllium copper, the modern miracle metal, as the heart of their industrial switches, where dependable performance is even more important than it is in your home. Berylco beryllium copper spring parts are easy to form, have superior electrical conductivity, last much longer.

Throughout industry—in controls, business machines, cars, instruments, television—Berylco

helps make better products, cheaper. Today, of course, Berylco beryllium copper is playing a very vital role in our defense program, helping to make better planes, better weapons, better materials of war.

We invite you to take advantage of the know-how of the world's largest producer of beryllium copper. Berylco engineers will be glad to work with you on *your* plans for the future—they are now working with many of the nation's largest, most progressive companies. Call or write our main office today.

DESIGN ENGINEERS will want to have "Manual 58." This comprehensive booklet lists applications for which beryllium copper is best suited, describes methods of forming and machining, gives properties, available forms and design considerations. Send for your free copy today.

THE BERYLLIUM CORPORATION

READING, PENNSYLVANIA

OFFICES IN PRINCIPAL CITIES AND TRADE CENTERS



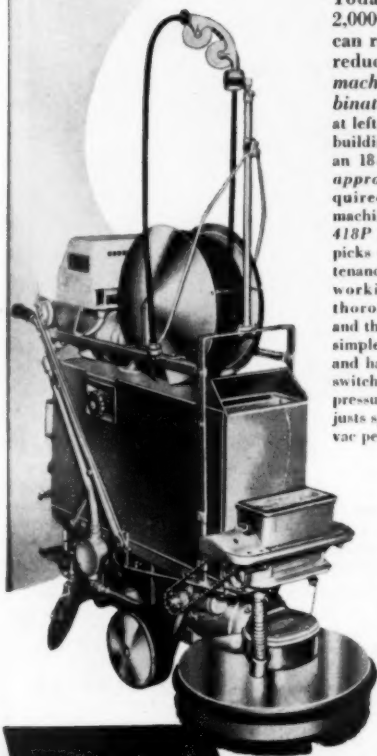
**TOMORROW'S
PRODUCTS
ARE PLANNED
TODAY—
WITH
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BERYLLIUM
COPPER**

SMALL-AREA BUILDINGS...

Save $\frac{2}{3}$ of Every Hour
of Scrubbing Time

WITH A

COMBINATION SCRUBBER-VAC!



Also can be used
for dry work—steel-
wooling, et cetera

Today, even buildings with but 2,000 to 15,000 sq. ft. of floor space can reap the labor-saving, cost-reducing benefits of combination-machine-scrubbing. Here's a Combination Scrubber-Vac, Model 418P at left, that's specially designed for such buildings. This Scrubber-Vac, which has an 18-inch brush ring, cleans floors in approximately one-third the time required with a conventional 18-inch machine and separate vac unit. Model 418P applies the cleanser, scrubs, and picks up—all in one operation! Maintenance men like the convenience of working with this single unit...the thoroughness with which it cleans...and the features that make the machine simple to operate. It's self-propelled, and has a positive clutch. There are no switches to set for fast or slow—slight pressure of the hand on clutch lever adjusts speed to desired rate. The powerful vac performs efficiently and quietly.

Finnell makes Scrubber-Vac Machines for small, vast, and intermediate operations, and in self-powered as well as electric models. From this complete line, you can choose the size and model that's exactly right for your job. It's also good to know that you can lease or purchase a Scrubber-Vac. For demonstration, consultation, or literature, phone or write nearest Finnell Branch or Finnell System, Inc., 3810 East St., Elkhart, Ind. Branch Offices in all principal cities of the United States and Canada.

Conserve Manpower with
Completely Mechanized Scrubbing

FINNELL SYSTEM, INC.

Originators of
Power Scrubbing and Polishing Machines



BRANCHES
IN ALL
PRINCIPAL
CITIES

fense people estimate it will take not more than 15 minutes for all stations to switch to the emergency equipment.

Defense stations will make no individual identifications. In fact, their anonymity will be further guarded by a tricky pattern of operation.

Stations in clusters will go on the air in a prearranged but irregular sequence, each for a random period varying from 5 sec. to 40 sec. The listener in his air raid shelter will hear no gap in the broadcast as one station snaps off the air and another picks up. But the navigator of an enemy bomber will have no single station on which to take his bearings: The broadcast will be carried successfully by stations hundreds of miles apart.

Stations that are off by themselves will similarly frustrate the aerial navigator by popping on and off the air at irregular intervals: on for 10 to 50 sec., off for 2 or 3 min.

• **Cost**—Broadcasters have already sunk more than \$1½-million in experiments with Conclrad. They have to buy new crystals to broadcast on the 640 kc. and 1240 kc. frequencies; in some cases they have to prepare to cut their power to the 5,000-watt limit.

Government agencies, chiefly the Air Force, have now taken over the \$400,000 expense of special lines to link up the control points and the clusters of stations. Cost of the program lines from CDA headquarters to control points of the clusters is being borne by CDA at around \$80,000.

• **Who Listens?**—As a means of keeping the public informed, Conclrad will work only if the public has radios in its places of shelter. Col. William M. Talbot, civil defense director of warning and communications, is trying to interest the radio manufacturing industry in developing a cheap portable radio that's within the means of every family.

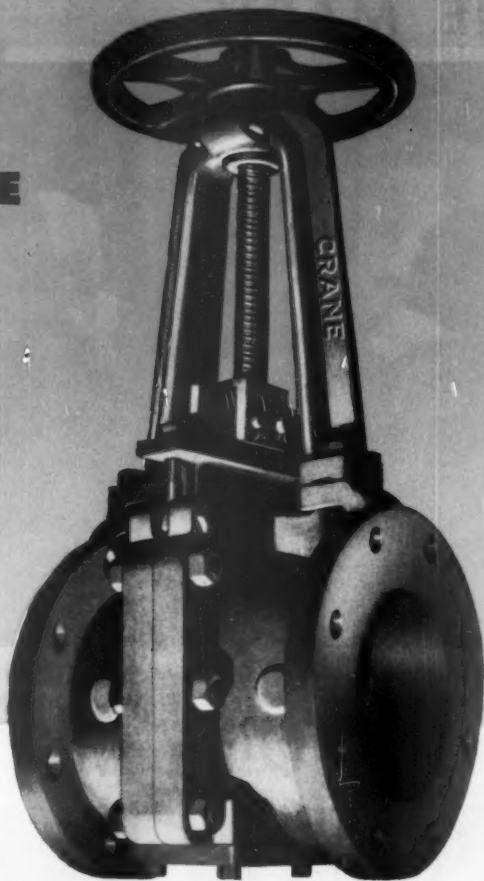
Ideally, this radio would operate either on house current or on batteries and would cost only \$7 or \$8. It would need power only to bring in the signal of the nearest stations in the civil defense network.

CDA is also planning a campaign to have people keep their small radios in repair. It hopes to interest radio repair shops in offering special low prices for this service.

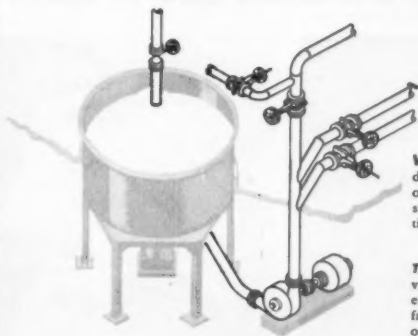
• **Other Fields**—Conclrad also covers the operations of industrial, fire, and police radio systems, which will get special rules for how they stay on the air during alerts. The President also has authority to silence any X-ray, diathermy, or industrial machine that emits signals between 10 kc. and 100,000 kc. if the signal carries 5 mi. or more and is capable of being used for aerial navigation. Ordinary electric shavers and motors don't fall in this category.

This CRANE VALVE cut out costly shutdowns

In this case, a mill was having repeated trouble with special service valves. By replacing with a Crane design, the mill was freed of process interruptions as well as high valve servicing costs. You can always count on better performance like this with Crane Quality valves, and the complete Crane line meets every industry's needs.



Read these Facts of the Case!



Where Installed: In a paper mill producing strong bag stock, on pulper outlet lines. Pulp here is of high consistency, normally about 6%. Continuous pulper operation is needed.

Trouble Encountered: The pulp stock valves formerly used had a strong tendency toward clogging. This forced frequent shutdown of pulper for clean-out of valves and lines. It was costly in time, labor, and production loss.

Solution and Result: The troublesome valves were replaced with Crane Pulp Stock Valves, now in service more than 5 years. Clogging was stopped completely. Since installed, Crane valves never have forced a single shutdown.

More CRANE VALVES *are used than any other make*

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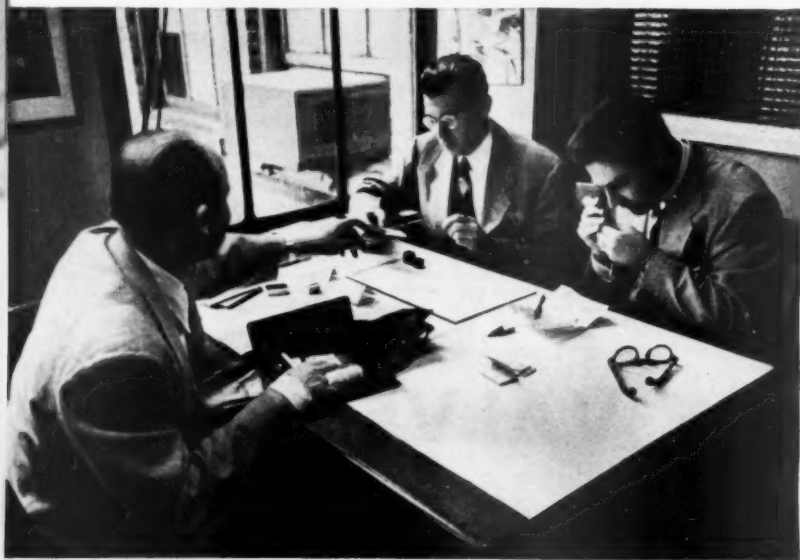
VALVES • FITTINGS • PIPE • PLUMBING • HEATING

THE MARTS



DEALERS who cluster along the sidewalks brought a big chunk of the diamond traffic with them when they fled Europe before

The Diamond Trade: at Home



DIAMONDS change hands in upstairs offices and in diamond clubs. Key tools: the big jewel trader's pouch, sorting sieve.



and during World War II.

nen 47th St.

Mention diamonds to the average New Yorker and he thinks of Maiden Lane. The crowded, crooked, little downtown street—just a few blocks north of Wall Street—is the time-honored nexus of the diamond trade in the diamond marketing hub of the world.

If you look for the wholesale center of the business there today, though, you will find that times have changed. Gradually, inconspicuously over the past 15 years, most of the firms and individuals who relay diamonds from the mine to the retailer have disappeared from Maiden Lane. They have moved to midtown office buildings in the blocks from 45th Street to 52nd, between Fifth and Sixth Avenues.

For a fast look at the intricacies of diamond trading, walk over to West 47th. At first glance, it could be any midtown crossstreet—an agglomeration of shops and restaurants. Then you notice the concentration of jewelry outlets, and the flashy exchanges where, across rows of rented booths, numerous dealers carry on a fringe business.

• **Very Special Clubs**—The focal points of the most intense wholesale trading

TINY JETS, most critical part of the carburetor, control the flow of fuel, must be accurate to better than two tenths.



100 complex carburetors tooled, produced, assembled and shipped within 90 days...

The Air Force desperately needed these replacement carburetors. But the original manufacturer had scrapped his tooling and was no longer interested. Daco took on the job, learned that tooling, producing and assembling the carburetor was no problem—but doing it in a *hurry* was. Drawings had to be made; subcontractors alerted; tools designed; an assembly line set up—and quickly. Within 90 days, 100

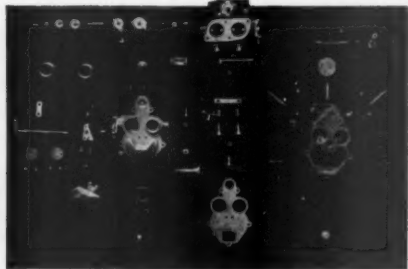
carburetors were delivered. Now Daco turns them out on a regular production basis.

Moral: If you have an instrumentation problem and want fast, competent service from blueprint stage to final assembly, it will pay you to discuss it with Daco. Meanwhile write for **DACO DOINGS**. It describes other unusual projects which may parallel your problems.

DACO MACHINE & TOOL COMPANY • 202 TILLARY ST., BROOKLYN, N. Y.



ASSEMBLY LINE set-up, in dust-free room, had to be improvised in a hurry.



EXPLODED VIEW of the carburetor shows the more than one hundred components, all of which had to be designed and produced within ninety days.

For Instruments and Instrument Tooling

DACO

activity are well up in the office buildings. These are the clubs, Diamond Dealers Club, Inc. and Diamond Center, Inc. They are accessible only to members.

A member reaches the Diamond Dealers Club by a special elevator. In the foyer, an attendant watches from behind a small, barred window. When he has identified a merchant, the attendant swings open the electrically controlled door to the club.

Inside is a large, smoky, unpretentious, crowded room filled with movement and a din of voices. In a corner of the clubroom is a lunch counter, on one side are telephones. Most of the hubbub comes from opposite ends of the room where, along rows of windows, small square tables are clustered. Diamond dealers, brokers, manufacturers, and importers—bargaining, buying and selling—sit or mill about them.

• **Light Is Vital**—The arrangement of the room was dictated by the windows, since light plays a key role in diamond trading. As one dealer explained, "The light can fool you. A stone doesn't look the same at 5 p.m. as at noon, or by south light as by north. A slight difference in shading can change a diamond's value 20%. That's why we work by true north light whenever possible, and only during the brightest part of the day."

The north windows of the club are reserved for finished gems. Through their loupe glasses, merchants intently appraise the magnified stones ranging from "coconuts"—large brilliants, or round stones—to piles of glittering melee, tiny stones of less than 1/25 carat. On the south side are the rough gems and the darker, often spotted industrial diamonds.

• **Dealing**—At any table, a dealer with feigned nonchalance produces the special, oversize wallet in which he carries his wares. The diamond or groups of stones are kept in packets of paper that look like bond on the outside, tissue on the inside. If the deal is on, the diamonds are taken for an official weighing on the club's precision scales, which are tested several times a day. Traders are fond of pointing out that, in the close-knit club group, they often do business on credit without even bothering to make out a receipt.

• **European Touch**—For the most part, the diamond traders are a plainly dressed, garrulous bunch who display a heavy sprinkling of moustaches and beards. Many of them are more fluent in French, Dutch, German or Yiddish than in English. Of the clubs' combined membership of roughly 2,000, about 1,600 came to the United States from Europe as refugees during World War II. Most are from Antwerp and Amsterdam, where diamond clubs served as key world exchanges.



TINY SCALES are an indispensable tool for the diamond dealers.

When Hitler pounced on the Low Countries in 1940, many of the diamond men used their commodity to escape. Diamonds were shipped, sold, used as bribes, or hidden on their persons. In one spectacular coup, in June, 1940, the Banque Diamantaire Anversoise, an Antwerp Bank, sent off \$20-million worth of gems in a truck to Bordeaux, France. From there they were carried to safety on an English collier.

• **Boom**—The hundreds of refugees who poured into New York found a relatively small diamond industry. About 50 American firms were importing finished stones, and maybe 10 firms cutting roughs.

But the U.S. industry was on the brink of a war-induced boom. Easier money and the spate of wartime marriages swelled the demand for diamond rings, bread and butter of the business. Defense production called for huge quantities of industrial diamonds for abrasive tools. The refugee merchants, with the help of diamonds they had salvaged, moved in on the tide of expansion.

When European cutting plants were isolated, the manufacturing center of the world's trade shifted to the United States. The cutting force here grew from about 500 workers to 6,000 during World War II. American imports of rough diamonds jumped from 153,982 carats in 1939 to 1,055,279 carats in 1946.

Almost as soon as they arrived, the newcomers began looking for a way to recreate the milieu of the European diamond clubs. They infused new life into an obscure group called the Diamond Dealers Club, then located downtown on Nassau St. Its ranks bolstered, the club could afford an uptown spot on West 47th. Then a new club, Dia-

mond Center, Inc. opened across the street.

• **A Good Deal**—At a yearly fee of \$75, the clubs are a good buy for the diamond men. They expedite trading by providing a mart. They also provide two protections for the dealer:

• The walls of the club are heavily dotted with Holmes Electric Protective Co. alarm buttons. In case of trouble, one push and building exits would be blocked, West 47th Street closed off in a matter of minutes.

• More important, the club investigates the records of prospective members. It also acts as a sort of internal force of justice, with special arbitration procedures when disputes arise.

• **Downhill**—Since World War II, the fortunes of the group generally have ebbed somewhat. Cheaper labor in Europe's reopened cutting centers has squeezed out most of the shops in this country that handled smaller stones. Many who prospered as cutters during the war have been forced into less profitable roles as dealers and brokers. The majority of the traders are not doing so well here today as they did in Europe. One summed up the situation this way, "In Europe, taxes were lower, and we were trading in a world market. If America wasn't buying, India was. Here, we're up against the fluctuating market of one country."

• **The Industry**—To assess the diamond trader's role in the industry, you have to start in Africa. Practically all the world's diamonds are mined there by DeBeers, Ltd. of London. Rough diamonds are imported into the U.S., for the most part by cutting firms. A dozen or so of the larger cutters, such as Baumgold Bros., Inc., of New York, account for over 50% of the volume.

Importing rough diamonds is tricky. Most firms have a broker in London who applies to DeBeers' Diamond Trading Co., Ltd. for stones of the desired type. Within the month, DTC offers an assortment. You have to take or refuse the whole package. Said one importer wryly, "It's not a good idea to say no."

Along with concern about whether the assortment he gets will make him a profit, the importer has other worries when he sets about transforming the pebbles into many-faceted gems. In the process, a stone loses half its weight and doubles its value. Sometimes the color of the diamond changes. Impurities show up. In cleaving, a fast, one-stroke operation is necessary; there's a chance the stone will break.

Big importers often mount a good part of their stones into rings. They have sizable sales forces around the country which sell to retail jewelers. Their secondary outlets are manufacturing jewelers and wholesale jobbers.

The smaller importer, with a limited

The Reader



His Mark

THE ABC SYMBOL which is printed at the head of this page is, in a very real sense, *your brand* on this magazine. Those letters stand for Audit Bureau of Circulations. The symbol indicates that the magazine is a member and supporter of that Bureau.

To the advertiser who contemplates using the magazine as an advertising medium, this symbol has a well-recognized significance. It tells him that the circulation records and practices of the magazine are wide open to the auditors of the Bureau, who check the publisher's claims and make public the precise terms and conditions under which subscriptions are obtained. And it assures him that the magazine stays in business by virtue of a demonstrated demand from its readers as shown by their paid subscriptions or newsstand purchases.

BUT HERE WE are concerned only with the significance of ABC to you as a reader. For when the advertisers, the advertising agencies, and the publishers founded the Bureau nearly forty years ago to help establish honest circulation figures, they unwittingly set up a cooperative institution that has become a major safeguard for the interests of the reading public.

That is because membership in ABC constitutes one of the strongest guarantees that any publication can offer of its primary devotion to the interests of its readers. And by making that guarantee possible, ABC becomes a major safeguard of the freedom of the press, an objective of exceptional importance in these days when the public is flooded with propaganda from so many sources.

THE SUREST MEANS by which to preserve a free press is to keep it directly answerable to the reading public it would serve. It follows, then, that the survival of a truly free press must depend on its acceptance by that public; and that means in turn that the people must have in their hands some adequate means for holding the publishers responsible to them.

No one has yet devised any means to that end more simple, more direct or more practical than the paid subscription or newsstand purchase price. The right to purchase or refrain from purchasing a publication gives to the readers and to no one else the power to pass judgment on whether that publication should continue to serve the reading public.

TO SUPERVISE this vital process, to check and certify the integrity of the publication's circulation methods and claims, requires a strict and continuing audit of each publication's success in meeting this test of its public acceptance. To that essential function the ABC has contributed mightily by the conscientious performance of its mission. And that is why we are able to have a press supported, for the most part, by advertising revenues, but not controlled as to its circulation or content by any influence other than its readers.

When an advertiser consults the ABC statement of a publication to ascertain the amount, the quality and the trend of its circulation, he does so in the legitimate pursuit of his own interest. But at the same time, inevitably, he is helping the ABC to keep the press responsible and responsive to the reading public. For, in effect, he is asking the publication to demonstrate through its circulation figures that it owes its standing to a voluntary demand by its readers.

SO THE Audit Bureau of Circulations, by auditing and certifying paid circulations, has come to perform a vital service to the readers of this magazine and of every other member publication. And in performing that service, it helps to maintain in our country a press that is answerable to the reading public and to it alone. So long as the practices and principles for which ABC stands continue to prevail in American publishing, we shall find in it a sure support for a truly free press, responsible only to the public it serves.

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EMPLOYMENT

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Patent Attorneys. Our Laboratories have grown to a population of more than 3000 men and women. New electronics products we have developed support a manufacturing organization of thousands of additional people. Because of our rapid growth and expansion of commercial interests, we have gotten a late start in building an appropriately large patent department. So we now have openings for patent attorneys that carry an unusual opportunity for rapid advancement. And the fact that our organization is one of the more prominent electronics laboratories in the country, provides a degree of security not usually associated with rapid individual growth. If you are professionally qualified in the field of Electronics, you should write in confidence to: Hughes Research and Development Laboratories, Engineering Personnel Department, Culver City, Los Angeles County, California.

Wanted. Assistant plant superintendent for leading manufacturer in fast expanding, new Western machine works division. Position open to man with proven ability and proven high income potential. Automotive-aircraft experience desirable in tooling, production engineering, shop supervision, production planning and control, plant and labor management, plus up-to-minute familiarity with latest machine tool and manufacturing methods. Salary open, usual executive benefits. Paid travel and moving. Location, San Francisco area. Confidential interviews by appointment only. All qualified reply to contain complete resume of education and experience. Box 5478.

Works Director—Glass Factory. Executive works Director in Ohio pressed glass plant. Not large but very substantial 80% year-old enterprise. Administrative abilities and practical general knowledge of factory operations required. Responsible for purchasing and general office. Report directly to President. Competent assistance by Works Manager, Chemist and Industrial Engineers. Lifetime position and commensurate income, including profit sharing, for right party. Present occupant retiring. Application will be treated absolutely confidential if desired. Write in full detail. Box 5537.

Positions Wanted

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6 yrs. Industrial Sales, Administration, Jr. Management. past 1 1/2 yrs. Exec. Offr. Navy Industrial Plant. 34; family: ind. engr. degree. Available Dec., not eligible for active recall. Seek sales or adm. job with mgt. future. Box 5534.

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Mechanical Engineer Pittsburgh office desires accounts: Chain belt conveyors; reduction drives; valves; perforated metal; wire cloth; plate fabrication. Protected territory only. Box 5471.

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Machine Design Problems? Tooling Problems? Our staff of engineers & designers are prepared to work hand in hand with your organization on your Machine Design & Tooling problems. We are in a position to design & build on a firm quote basis. Inquiries solicited from reputable established firms. Arnold C. Gayne Associates, Inc., 670 State St., Bridgeport, Conn.

Want pictures shot abroad? Direction and production of industrial movies of any type in any country. Still photos. Representatives all over the world. For details, write Overseas Photo Service, McGraw-Hill International Corporation, 330 West 42, New York 36, N. Y.

Job-Sewing wanted. We have complete facilities and engineering services for sewing anything from sheerest nylon to heaviest duck. Government. Military approved. Send for illustrated brochure outlining facilities and typical products. Guild Products, 801 E. Third, Cincinnati, Ohio.

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X-Ray Incorporated is your Detroit Office and Laboratory for Quality Control on materials purchased by you in this area. We offer Chemical, Spectrographic, Chlorimetric, Physical, Microphotographic, and Radiographic Testing: Phone or write for complete information on our services. 13931 Oakland Ave., Highland Park 3, Michigan. Townsend 9-5400.

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Roll-Or-Kari Dual Appliance Truck. The safe, easy and quick way to handle stoves, refrigerators, freezers, etc. Cap. 1,000 lbs.—Patented Step-On-Lift. For prices and full information write Dept. W., Roll-Or-Kari Co., Zumbrota, Minnesota.

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Wanted—Used GM71 Injectors & Parts, J. Bars —7120 Carnegie Ave., Clevel., O.

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Profit Opportunity for lifetime business. Start a Venetian Blind Laundry. New Machine. You can aim at a first year \$15,000 profit. L. C. Co., 442 N. Seneca, Wichita 12, Kansas.

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For Sale or Lease

Canadian Factories. New one-story Modern plants at Chatham and Windsor, Ontario. 12'-4" ceiling heights—7,000 to 15,000 sq. ft. or can be increased. For sale or lease. Terms: For particulars write—Zabara Construction Company Ltd., Box 161, Walkerville, Ont., Canada.

For Sale—Flour Mill, 100-BBL, Corn Mill, Feed Mill. All in perfect condition, doing \$25,000 Business monthly located in one of the fastest growing towns. Box-5426.

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ROLLINS FLEET LEASING
Any number of Cars or Trucks
No capital investment. Better employee relations.
New cars yearly. Savings of thousands of dollars.
Unlimited mileage.
100% TAX DEDUCTIBLE
Rethelch, Delaware, Phone 3561

"... diamond traders are regarded with amusement, amazement..."

DIAMONDS starts on p. 178

sales organization, looks for retailers in New York and nearby areas. He also sells stones to larger firms, which are always eager to increase their stocks because of the more or less permanent short supply. With industrial diamonds, importers either sell to tool manufacturers or set the stones themselves, then sell to industry.

• **Role of Traders—**Where do the diamond traders come in? They are a group made up mainly of dealers and brokers who occupy a small but useful and colorful corner of the industry.

Diamond traders are regarded with amusement, amazement, and a certain uneasiness by the rest of the trade. By circuitous means, they take up the slack in the flow of goods. Constantly buying and selling at a small profit, they somehow manage to make things move. Their manipulations can hasten prices up or down.

Of the traders, the diamond broker is a salesman, and never holds title to the stones. At different moments, he may be working for a dealer, a cutter, or an importer of polished stones.

• **Dealers—**It's the dealer who does the investing, hoping to sell his parcels—often through a broker—at a 3%-6% profit. He may have a few retailer connections, or sell to a manufacturer of jewelry who stops in from out of town.

When he's not at the club, or out showing diamonds to a customer, the dealer can probably be found in a small, bare office equipped with little more than a desk, a vault, and a set of scales. He spends a lot of time at his desk, poring over groups of stones piled on sheets of paper. With a tweezers, he counts the stones. He uses metal disks with different size holes to grade them. Finally, he sorts them into what he figures are the most saleable groupings.

• **Round and Round—**To last in the diamond game, he needs an expert eye for the color, purity, and workmanship of a stone, and a good hunch what price it will ultimately fetch. Working on a slight margin, he needs a fast turnover.

Frequently, diamonds pass through a succession of dealers' hands before they filter down to the retailer. There's a story in the trade about Mike, who sold a bundle of stones to Ike for \$800. Five days later, Ike sold the bundle back to Mike for \$850, and it kept up that way for a couple of weeks. Then one day Mike called Ike for the stones. "I sold them, Mike," "You fool," said Mike, "we were making a living off those stones!"

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What to Do about East-West Trade?

Should Europe trade more, or less, with Russia and the satellites? That is the question to which the U.S. Council of the International Chamber of Commerce addressed itself in a recent report. Its answer in brief: Europe should maintain restrictions on Soviet-bound export of military value, and simultaneously attempt to export more goods elsewhere.

Many Americans don't stop to think about it, but when we give aid to Europe a string is tied to the merchandise; it is given with a proviso that if it is of military value it cannot be trans-shipped to the Soviet zone, nor can Europe ship military goods of its own manufacture behind the Iron Curtain. And, if any transgressions are discovered, it is within the President's discretion to stop all aid to the offending country. We determine what is and what is not of military value, in a long catalog of blacklisted goods ranging from atomic energy materials to rubber. So far there have been few, if any, serious violations of our blacklist.

Still fewer Americans stop to think that this has disrupted normal European trade back and forth between the Western and Eastern countries, and that it has likewise made the Western group more dependent on dollar aid—or trade—with us.

England everyone knows—and it is a good example—is dependent on outside sources for food. One of the great granaries of the world before the cold war was Russia and one of the great meat producers was Poland, but England is inhibited now from swapping many of her manufactured goods for wheat or ham.

Germany is another: The part now behind the curtain once supplied much of the food for the whole country, while the Ruhr and Saar sent back manufactured goods. But now Germany is cut in two and each of the formerly interdependent parts must get along without the other.

The picture is pretty much the same up and down the coasts of Europe: normal trade frustrated, more and more dependence on new sources of supply, new markets, more aid.

BUSINESS WEEK supports the Council's recommendation that no trade of goods of military significance be allowed so long as we can help it. No trade of goods on the blacklist can be tolerated, no matter what the inconvenience and no matter what the cost to Europe or ourselves. Most of our allies wholeheartedly concur. This is one of the expenses of a cold war.

The boycott of military goods has, in our belief, hurt Russia more than is generally realized, and may have been one of the prime reasons for the recent Moscow invitations to the outside world to resume trade.

On the other hand, we do not think there can be serious harm in the exchange of certain types of civilian goods between the West and the Iron Curtain countries. Indeed, it might be healthy for all concerned. Goods that are eaten or burned are examples: Italian tomatoes for Polish ham, Greek tobacco for Rumanian eggs, Russian

timber for British chinaware. In such transactions there could be little danger. Unfortunately, this kind of deal doesn't appeal to the Russians—they want engines, machine tools, ships, new inventions, airplanes, chemicals, technical knowhow, instruments—in other words, war material.

As to the second recommendation that "an effort (should be made) to divert some of the exports of Western European countries to areas outside Europe," we will be more explicit than the Council.

We believe that the United States should make it easier for Europe to sell in this country. The U.S. asks Europeans, even demands, that they not sell to Russia, under pain of losing our friendship and support. It follows therefore that we should not erect new trade barriers to prevent their trading with us, as some elements in America desire.

We should go as far as practicable to let Europe earn its way by selling to this country, which is, after all, the one market most of them need to keep solvent. We want to keep the people of Europe spiritually, politically, militarily, and economically out of the Soviet orbit—for Europe to drift away from us into communism would be a catastrophe. The best way to bind them to us is economically, and a good way to start is to help them to help themselves. What's more it will save us money.

On a Money Back Basis

A friend has sent us a copy of a letter he has received from an organization in Washington which guarantees to tell who will win the election not later than ten days before Election Day. Of course, a fee is to be charged for this service, a relatively modest fee all things considered. And with the offer goes an iron-clad guarantee: If the service should pick the wrong candidate, the fee will be refunded. What could be fairer than that?

Our friend is fascinated with the idea. He is thinking of setting up a similar service to cover a broader range of uncertainties.

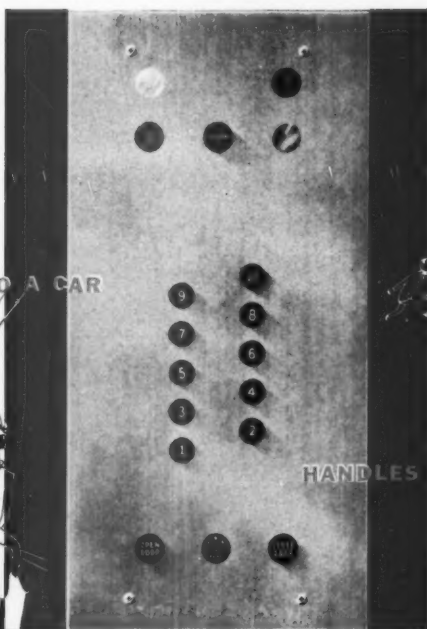
For example, persons who are planning Sunday School picnics will have only to call our friend's service, and he will tell them positively whether or not it is going to rain on the day of the picnic. There will be a fee, of course; but if it does rain after all, you will get the fee refunded. Anxious fathers can now learn whether it is to be a boy or a girl, twins or triplets.

For the speculatively minded, there will be a stock market advisory service. Stocks will be bought on a positive guarantee that they will go higher in the course of the ensuing month. If they do not, the fee will, of course, be refunded. On the other hand, if they do, the lucky investor ought to be prepared to pay generously for the advice. Possibilities are almost unlimited; so our friend thinks.



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